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**FINAL FINDING OF SUITABILITY TO TRANSFER (FOST) # 9 FOR CARVE-
OUTS 2 AND 9 (PUBLIC DOCUMENT)**

03/02/2017

BECHTEL ENVIRONMENTAL, INC.

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FINAL

Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9

**Former Marine Corps Air Station Tustin
Tustin, California**

2 March 2017

**U.S. Department of the Navy
Base Realignment and Closure
Program Management Office West
33000 Nixie Way
Building 50, Second Floor
San Diego, California 92147**

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Finding of Suitability to Transfer #9
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ACRONYMS AND ABBREVIATIONS

§(§)	section(s)
AOC	area of concern
ARIC	area requiring institutional controls
ATJV	AIS-TN & Associates Joint Venture
BEI	Bechtel Environmental, Inc.
BRAC	Base Realignment and Closure
BCT	BRAC Cleanup Team
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
City	City of Tustin
CO	Carve-Out
COC	chemical of concern
CRUP	Covenant to Restrict Use of Property
1,1-DCE	1,1-dichloroethene
DOD	United States Department of Defense
DON	United States Department of the Navy
DTSC	California Environmental Protection Agency/Department of Toxic Substances Control
FFSRA	Federal Facility Site Remediation Agreement
Former Station	Former Marine Corps Station Tustin
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
IC	institutional control
IRP	Installation Restoration Program
LIFOC	Lease in Furtherance of Conveyance
LUC RD	Land-Use Control Remedial Design
MCAS	Marine Corps Air Station
MCL	California Maximum Contaminant Level
MWA	Miscellaneous, Wash Area
NFA	no further action
OPS	operating properly and successfully
OU	Operable Unit
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RWQCB	California Regional Water Quality Control Board/Santa Ana Region
ST	Storage, Temporary
TCE	trichloroethene
TOW	Treatment, Oil/Water Separator

ACRONYMS AND ABBREVIATIONS (continued)

U.S.	United States
U.S.C.	<i>United States Code</i>
U.S. EPA	United States Environmental Protection Agency
VOC	volatile organic compound
WBZ	water-bearing zone

1. PURPOSE

The purpose of *Finding of Suitability to Transfer (FOST) #9* is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated material within Carve-Outs (COs) 2 and 9 at Former Marine Corps Air Station (MCAS) Tustin (the “Former Station”) have been satisfied by the United States (U.S.) Department of the Navy (DON). Through the Base Realignment and Closure (BRAC) process, the DON transferred, by deed, certain Former MCAS Tustin real property in 2002 and subsequent years. Other real property known as COs was retained by the DON, pending further investigation and cleanup to support determinations that the property is environmentally suitable for transfer. This FOST was prepared in accordance with the DON (2008) BRAC Program Management Office *Policy for Processing Findings of Suitability to Transfer or Lease* and the *Base Redevelopment and Realignment Manual* (U.S. Department of Defense [DOD] 2006).

2. PROPERTY DESCRIPTION

Former MCAS Tustin is located in central Orange County, California (Figure 1) and was operationally closed in July 1999. The property proposed for transfer under this FOST consists of 2 COs comprising approximately 8 acres (Figure 2). Both COs were leased to the City of Tustin (City) under a *Lease in Furtherance of Conveyance* (LIFOC) in May 2002 (DON 2002d). A brief description of the COs follows:

- CO-2 (Figures 3 and 4) consists of approximately 6 acres and contains no buildings or structures related to operations at the Former Station; currently, CO-2 consists of non-DON commercial development, including parking lots, streets, and minor landscaping associated with adjacent businesses operating under the City’s LIFOC (DON 2002d). Former Building 250 (Figure 3) was constructed in 1984 in the northwestern portion of CO-2, and although it was initially slated for reuse (DON 2002c), the building was demolished prior to the commercial redevelopment of the area. Former Buildings 267 and 556 (Figure 3) were respectively constructed in 1984 and 1990 and, as planned (DON 2002c), were demolished prior to the commercial redevelopment of the area.
- CO-9 (Figures 5 and 6) consists of approximately 2 acres and contains no buildings or structures related to operations at the Former Station; currently, CO-9, which is leased to the City under a LIFOC (DON 2002d), consists of undeveloped and developed property, including portions of the newly constructed Tustin Ranch Road and Park Avenue and associated sidewalks and landscaping. The northern portion of CO-9, northeast of Warner Avenue, is currently an open, partially grass-covered area intersected by Tustin Ranch Road. According to the City’s (1998, 2012) *MCAS Tustin Specific Plan/Reuse Plan*, CO-9 north of Warner Avenue is designated as “Residential Core”. Residential apartments are present in the area immediately north of CO-9.

3. REGULATORY COORDINATION

Former MCAS Tustin is not listed on the U.S. Environmental Protection Agency (U.S. EPA) National Priorities List under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). On 18 August 1999, a Federal Facility Site Remediation Agreement (FFSRA) between the DON and the California Environmental Protection Agency/Department of Toxic Substances Control (DTSC) was signed (DON 1999). The FFSRA defines the DON’s response and corrective action obligations under CERCLA and the Resource Conservation and Recovery Act (RCRA).

Since 1993, the BRAC Cleanup Team (BCT) has coordinated cleanup and closure activities at the Former Station. The BCT consists of representatives from the DON, U.S. EPA, California Regional Water Quality Control Board/Santa Ana Region (RWQCB), and DTSC. The BCT members have

reviewed and commented on documents pertaining to environmental investigations and remediation activities at Former MCAS Tustin. The DON is the lead federal agency regarding environmental restoration at Former MCAS Tustin, with DTSC as the lead regulatory agency providing oversight, as assisted by U.S. EPA and RWQCB.

The U.S. EPA, DTSC, and RWQCB were notified of the initiation of this FOST and were issued copies of the draft version for review. Responses to regulatory agency comments on the draft version are provided in Attachment 1; there are no unresolved comments. Pertinent regulatory correspondence is provided in Attachment 2.

3.1 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA response actions are initiated at environmental sites where CERCLA hazardous substances have been or may have been released. Under Executive Order 12580, the DON is the lead agency responsible for CERCLA cleanups at its properties. This FOST includes Installation Restoration Program (IRP) Sites 6 (CO-2) and 5S(a) (CO-9), where a CERCLA response action has been implemented. Both of these sites have received agency concurrence on an operating properly and successfully (OPS) determination, as noted in Sections 4.1.1 and 4.1.2, respectively.

4. SUMMARY OF ENVIRONMENTAL REQUIREMENTS AND NOTIFICATIONS

This section summarizes the environmental requirements and notifications as they relate to CERCLA/RCRA, petroleum products and derivatives, pesticides, and vapor intrusion. Pursuant to 40 *Code of Federal Regulations* Parts 302.4 and 373, and in the form and manner prescribed by CERCLA [42 U.S.C. Section (§) 9620(h)], the deed(s) for the CERCLA-impacted COs will contain, to the extent such information is available based on a complete search of agency files, a notification of hazardous substances stored for 1 year or more or known to be released or disposed of in amounts greater than or equal to their reportable quantities within the CO. This notice is provided in Attachment 3, Hazardous Substances Notification Table. Attachment 4, Petroleum Products Notification Table, lists the areas of concern (AOCs) associated with the storage of petroleum products.

Table 1 identifies the environmental requirements and notifications applicable to the COs. Based on an evaluation of the *Final Basewide Environmental Baseline Survey* (Bechtel National, Inc. 2001), AOCs, hazardous substances, petroleum products, CERCLA/RCRA response actions, and pesticides were present or have occurred within one or more COs. In accordance with the *Finding of Suitability to Lease for Southern Parcels Carve-Out Areas 1, 2, 3, and 4* (FOSL #2; DON 2002c), no notifications are necessary for asbestos-containing material, lead-based paint, or polychlorinated biphenyls primarily because former Buildings 250, 267, and 556 (Figure 3) were constructed in 1984 or later, after the era in which these products were commonly used.¹ However, as was the case with FOSL #2 (DON 2002c), a notification with respect to the historical use or storage of radiological materials in Building 556 is necessary (see Section 4.1.1). In addition, pursuant to the *Defense Environmental Restoration Program (DERP) Management Manual* (DoD 2012), FOSL #2 (DON 2002c), and the *Finding of Suitability to Lease for Carve-Out Areas 5, 6, 7, 8, 9, 10, and 11* (FOSL

¹At the time CO-2 was leased to the City, Buildings 267 and 556 were not surveyed for the presence of asbestos-containing material, and they were therefore restricted from occupancy prior to demolition (DON 2002c). No friable, accessible, and damaged asbestos-containing material was identified in Building 250 during an inspection conducted in January 2001 (URS Corporation 2001), and therefore no occupancy restrictions were instituted (DON 2002c). Transformers associated with Buildings 250 (Serial Numbers POL-0670 and 8402-754-020-3) and 556 (Serial Number 891105343), which were located either inside the buildings or on a concrete pad known as SS-2 (Figure 3), did not contain polychlorinated biphenyls at concentrations above the federal standard of 50 parts per million (Kennedy/Jenks Consultants 1992; DON 1996; Bechtel National, Inc. 2001) and were therefore not replaced (DON 2002c).

#3; DON 2002b), a notification with respect to the potential for vapor intrusion from impacted shallow groundwater is necessary (see Section 4.4).

Table 2 identifies AOCs where a release is suspected to have occurred, a documented release has occurred, or based on the types of activities that occurred in the area, there was a potential for a release. The AOCs within the COs proposed for transfer have received regulatory agency concurrence for no further action (NFA) or have implemented CERCLA remedies that have achieved an OPS determination. NFA designations are based on the findings of evaluations or cleanup actions, and AOCs with NFA designations are suitable for transfer as long as the applicable notifications and restrictions outlined in Sections 4 and 5, respectively, are adhered to. This includes AOCs that meet the federal and state definitions of solid waste management units and received NFA designations either because no corrective action was required to provide adequate protection of human health and the environment or the required corrective action has been completed.

4.1 CERCLA/RCRA SITES

This section addresses the CERCLA/RCRA sites for each CO within this FOST. Each CERCLA/RCRA site has received closure and agency concurrence for NFA or an OPS designation. IRP Sites 6 and 5S(a) have not achieved NFA; however, the remedies have been implemented in accordance with CERCLA, and the DON and regulatory agencies (DTSC 2015; RWQCB 2015; U.S. EPA 2016) have determined that their respective remedies are OPS. Thus, IRP Sites 6 and 5S(a) are suitable for transfer subject to the notifications and restrictions outlined in Sections 4 and 5, respectively.

This section also includes a discussion of the temporary storage of radiological materials within and adjacent to former Building 556 in CO-2 (Figure 3) in 1998 and 1999, as reported in the *Final Historical Radiological Assessment* (Roy F. Weston, Inc. 2001). These areas underwent a radiological survey and were determined in the *Final Radiological Release Report* (Weston Solutions, Inc. 2004) to not be radiologically impacted, so they were never designated as CERCLA sites.

4.1.1 Carve-Out 2

CO-2 (Figures 2, 3, and 4) consists of IRP Site 6 and the following RCRA corrective action sites: Storage, Temporary (ST)-35; ST-36; Miscellaneous, Wash Area (MWA)-25; and Treatment, Oil/Water Separator (TOW)-X6. The status of each AOC is detailed below and in Table 2. Former Building 556 and ST-35 were also temporarily used for the storage of radiological materials, but were never designated as CERCLA/RCRA sites for this reason as they were determined to not be radiologically impacted.

IRP Site 6 – IRP Site 6 (Figures 2, 3, and 4) was formerly occupied by Building 250 and was used as a paint locker and drum storage area from 1972 to 1981. An aerial photograph from 1976 showed evidence of aboveground storage tank locations near the northwest corner of the site and a former drainage ditch that crossed the site in an approximately northeast/southwest direction. Former Building 250 was also used as a receiving and distribution center for MCAS Tustin supplies.

The *Initial Assessment Study* (Brown and Caldwell Consulting Engineers 1985) reported that an estimated 53 gallons of waste was potentially released to soil from an average of 100 drums stored at the site at any given time. In addition to the drum storage, an average of 2 gallons per month of waste Alodine, a corrosion inhibitor for aluminum, was reportedly disposed at IRP Site 6. An estimated 20% of the waste Alodine was rinsed with water onto the grass, and 80% was disposed directly onto the grass. An estimated 225 gallons of this solution, which contains chromic acid, cyanide, and fluoride, was disposed of by this method from 1972 to 1981 (Bechtel Environmental, Inc. [BEI] 2004).

Previous investigations and groundwater monitoring at IRP Site 6 indicated trichloroethene (TCE) concentrations exceeding the California maximum contaminant level (MCL) of 5 micrograms per liter and 1,1-dichloroethene (1,1-DCE) concentrations exceeding the California MCL of 6 micrograms per liter in the first water-bearing zone (WBZ). As documented in the *Final Record of Decision (ROD)/Remedial Action Plan (RAP) for Operable Unit (OU)-4B* (DON 2010), the remedy selected for groundwater is in situ bioremediation, monitored natural attenuation, and institutional controls (ICs); soil requires NFA. The remedial action was implemented to achieve site-specific remedial action objectives and remediation goals (DON 2010).

The *Final ROD/RAP* (DON 2010) identified TCE and 1,1-DCE as chemicals of concern (COCs) in groundwater. The IRP Site 6 COC plume is located mostly within CO-2, which is leased to the City through a LIFOC (DON 2002d).

A *Final OPS Demonstration Report* for IRP Site 6 was completed and issued on 22 February 2016 by AIS-TN & Associates Joint Venture (ATJV 2016). U.S. EPA (2016) concurred with the OPS determination in letter dated 17 February 2016. DTSC (2015) concurred via an e-mail dated 9 November 2015, and RWQCB (2015) concurred via a letter dated 6 November 2015. Copies of these concurrence letters were included as an appendix in the *Final OPS Demonstration Report* (ATJV 2016).

ST-35 and ST-36 – ST-35 and ST-36 received BCT concurrence for NFA in 2001 (BCT 2001).

MWA-25 and TOW-X6 – MWA-25 and TOW-X6 received BCT concurrence for NFA in 2000 (BCT 2000).

Building 556 and ST-35 – The *Final Historical Radiological Assessment* (Roy F. Weston, Inc. 2001) identified former Building 556 and an adjacent drum storage area (presumably ST-35) as locations where radiological materials were reportedly temporarily stored in 1998 and 1999 while arrangements were being made for their disposition as part of closure of the Former Station. Inside the building, a 55-gallon drum containing radiological components (12 ice detectors and 2 radiation detectors) had been present since 1998 in a locked storage room. Adjacent to the building (again, presumably at ST-35), 11 drums (two 85-gallon, five 55-gallon, three 30-gallon, and one 15-gallon) containing aluminum oxide sandblast grit with detectable, although exempt, quantities of naturally occurring radium and thorium, had been present since early 1999. All these materials were removed in June 1999. As documented in the *Final Radiological Release Report* (Weston Solutions, Inc. 2004), former Building 556 and the adjacent drum storage area underwent a radiological survey and were recommended for NFA/unrestricted radiological release. This recommendation was concurred upon by the BCT (DTSC 2004; U.S. EPA 2004; RWQCB 2004) and California Department of Health Services (2004).

4.1.2 Carve-Out 9

CO-9 (Figures 2, 5, and 6) is located in the southern portion of Former MCAS Tustin, north of Jamboree Road. As shown on Figure 5, CO-9 includes IRP Site 5S(a). The status of IRP Site 5S(a) is detailed below and in Table 2.

IRP Site 5S(a) – Drainage Area No. 1 – Ditch 5a South, is located in the southern portion of Former MCAS Tustin (Figures 2, 5, and 6), southeast of former Aircraft Hangar No. 2 (Building 29). IRP Site 5S(a) was formerly part of a culvert system that collected surface-water runoff from most of the northwestern portion of Former MCAS Tustin and was connected to several existing and former buildings (e.g., Building 29).

During the period of MCAS Tustin operations, a variety of contaminants including fuels, oils, lubricants, and solvents may have drained into IRP Site 5S(a) through building floor drains connected to the culvert system. IRP Site 5S(a) also received surface-water runoff from other IRP

sites (including 11, 12, 13S, and 13W) and several AOCs. Materials handled at these sites included waste oils, cleaning solvents, hydraulic fluids, diesel fuel, gasoline, paint stripper, battery acids, and other chemical wastes (BEI 2004). The former drainage ditch located at IRP Site 5S(a) was diverted and backfilled by the City and its sublessees.

The *Final ROD/RAP* (DON 2010) identified TCE to be the COC in groundwater. The remedy selected for groundwater is in situ bioremediation, monitored natural attenuation, and ICs; soil requires NFA. The remedial action was implemented to achieve site-specific remedial action objectives and remediation goals (DON 2010). A portion of the IRP Site 5S(a) TCE plume is located within CO-9, which is leased to the City through a LIFO (DON 2002d).

A *Final OPS Demonstration Report* for IRP Site 5S(a) was completed and issued on 22 February 2016 (ATJV 2016). U.S. EPA (2016) concurred with the OPS determination in a letter dated 17 February 2016. DTSC (2015) concurred via an e-mail dated 9 November 2015, and RWQCB (2015) concurred via a letter dated 6 November 2015. Copies of these concurrence letters were included as an appendix in the *Final OPS Demonstration Report* (ATJV 2016).

4.2 PETROLEUM PRODUCTS AND DERIVATIVES

Closure actions for petroleum-related AOCs are detailed in Table 2. Attachment 4, Petroleum Products Notification Table, lists the AOCs associated with the storage, release, or disposal of petroleum products.

All petroleum sites identified in this FOST containing residual petroleum or its derivatives have been closed with the concurrence of the applicable regulatory agencies. The deed shall contain a clause wherein the transferee is notified that all known sites within the FOST parcel containing solely petroleum or petroleum derivatives have been closed with the concurrence of the applicable regulatory agencies. The clause in the deed will require the transferee to assume all obligations, liabilities, costs, and burdens with respect to the development, improvement, use, or maintenance of the petroleum sites identified in this FOST with respect to any act or failure to act by the transferee that causes or exacerbates the release or threat of release of residual petroleum from such sites.

4.2.1 Carve-Out 2

There are no exclusively petroleum-related AOCs within CO-2 (DON 2002c).

4.2.2 Carve-Out 9

There are no exclusively petroleum-related AOCs within CO-9 (DON 2002b).

4.3 PESTICIDES

The deed will contain a notification, and the transferee will acknowledge, that registered pesticides have been applied to the property conveyed herein and may continue to be present thereon. The deed will contain an acknowledgment from the transferee that where a pesticide was applied by the DON or at the DON's direction, the pesticide was applied in accordance with its intended purpose and consistently with the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136, et seq.) and other applicable laws and regulations. It is the DON's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, 42 U.S.C. § 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.

4.4 VAPOR INTRUSION

The *Final ROD/RAP* (DON 2010) documented that NFA was required for soil at IRP Sites 5S(a) and 6. However, shallow groundwater impacted by TCE and 1,1-DCE at concentrations greater than their

respective maximum contaminant levels is still present and is being addressed as discussed in Section 4.1. Currently, there are no unacceptable vapor intrusion risks based on the comprehensive CERCLA evaluations conducted to date (Multimedia Environmental Compliance Group 2016).

In accordance with previous notifications made in FOSL #2 (DON 2002c) and FOSL #3 (DON 2002b) as well as the requirements of the *DERP Management Manual* (DoD 2012), the deed shall contain a clause wherein the transferee is notified that there is a potential vapor intrusion risk associated with the groundwater plumes that underlie COs 2 and 9. No occupancy restrictions are currently necessary as there are no existing buildings, but the transferee may be required by applicable regulatory agencies to address the potential for vapor intrusion in future structures at its own expense by adding appropriate mitigating measures during construction or by demonstrating that there is no unacceptable risk under applicable law.

5. SUMMARY OF RESTRICTIONS

This section summarizes restrictions related to CERCLA/RCRA sites. These restrictions are intended to protect human health and the environment and maintain the integrity of the remedy for as long as COC concentrations in groundwater remain above remediation goals. The ARICs for IRP Sites 6 and 5S(a) are respectively coincident with the legal boundaries of CO-2 and CO-9 (Figures 4 and 6, respectively).

Land-use restrictions will be implemented in accordance with remedial design documents for CERCLA sites where the remedies have been implemented and operation and maintenance is underway. These restrictions will be incorporated into two separate legal instruments and will apply to any and all property within the ARICs:

- 1) Quitclaim deed(s) between the DON and the transferee(s)
- 2) Covenant(s) to Restrict Use of Property (CRUP[s]) between the DON and DTSC.

The land-use restrictions, as described below, are consistent with the *Final Land-Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and Mingled Plumes Area* (Final LUC RD; ATJV 2015a). The *Final LUC RD* also includes additional details with respect to the future land owner's(') responsibilities for inspections, reporting, and enforcement of ICs. The following IC implementation responsibilities will be included in the quitclaim deed(s) and the CRUP(s): site inspections, compliance reporting, monitoring equipment protection, and notification of proposed changes in land use.

The following land-use restrictions will apply within the IRP Sites 6 (entirety of CO-2) and 5S(a) (entirety of CO-9) ARICs (Figures 4 and 6, respectively). The following activities shall be prohibited, unless reviewed and approved in writing in advance by the FFSRA signatories in accordance with the quitclaim deed(s) and CRUP(s):

- Installation of new groundwater wells of any type.
- Performance of activities that could expose groundwater.
- Use of groundwater for any purpose within the ARICs.
- Alteration, disturbance, or removal of any component of the response action, including but not limited to, groundwater monitoring wells and associated equipment.
- The installation of any structure or improvement or conducting any activity that may adversely impact the groundwater contaminant plume. However, if a California-registered third-party professional engineer, geologist, engineering geologist, or hydrogeologist (as appropriate) determines that the structure, improvement, or activity will NOT affect the plume, the DON and DTSC must be notified by the transferee prior to conducting the activity, but prior review and approval by the DON and DTSC is not required. When the registered professional determines that a planned structure, improvement, or activity will or

may adversely affect the plume, then prior review and written approval by the DON and DTSC is required.

- Construction or operations that interfere with ongoing monitoring or assessment work or the final remedy within the ARICs.

Land-use restrictions will also be implemented for any future remedial infrastructure (groundwater monitoring wells) that may be revised or updated by the DON over the life of the remedy, with regulatory approval, as necessary. Remedy components and groundwater monitoring wells that currently require protection are listed in Table 3 and identified within the ARICs shown on Figures 4 and 6.

6. ADJACENT PROPERTIES

The COs in this FOST are primarily adjoined by or proximate to property previously leased based upon FOST #2 (DON 2002b) and FOST #3 (DON 2002c) or transferred based upon the *Finding of Suitability to Transfer for Parcels 23, 29, 34, 35, and 36, and Portions of 1, 16, 17, 24, 27, 28, 40, and 41* (DON 2002a). As these adjoining/proximate COs (Figure 2) areas were found suitable for lease or transfer, they pose no negative effects on the COs proposed for transfer in this FOST. A review of all the available information, including records from the State Water Resource Control Board's GeoTracker and DTSC's EnviroStor websites, indicates no known sources of contamination on the adjoining properties, with the exception of TCE-impacted groundwater beneath CO-6, which is undergoing a CERCLA response action as described in Section 6.2. Ongoing remediation in CO-6 is not expected to affect CO-2 or CO-9.

6.1 CARVE-OUT 2

CO-2 is currently surrounded by The District at Tustin Legacy between Tustin Ranch Road and Park Avenue. Previous COs 4 and 1 (Figure 2) were found to be suitable for transfer, and they pose no negative effects on CO-2 (DON 2002c). Following the transfer of property adjacent to CO-2 from the DON to the City in May 2002 (DON 2002e,f), an isolated portion of the 1,1-DCE plume associated with IRP Site 6 was discovered outside of the southeastern portion of CO-2 adjacent to the Costco Wholesale Corporation gasoline station (Figure 4). The DON has notified the City and Costco Wholesale Corporation and is responding to the impacts outside of CO-2 via monitored natural attenuation in accordance with CERCLA protocols and the BCT-approved *Final Operation and Maintenance Plan* (ATJV 2015b).

6.2 CARVE-OUT 9

CO-9 is surrounded by COs 6, 7, and 8. Previous COs 7 and 8 (Figure 2) were found to be suitable for transfer, subsequently transferred, and have no ongoing remediation (DON 2002b). They pose no negative effects on CO-9. CO-6 includes IRP Site 3, which is part of the study area designated as OU-1B South.

A ROD for IRP Site 3 (OU-1B, located within CO-6) documenting the final groundwater remedy, which includes hydraulic containment of volatile organic compound (VOC)-impacted groundwater, removal of groundwater hot spots, and ICs, was finalized in October 2004 (DON 2004). The ROD also documented the NFA determination for soils. The final groundwater remedy, hot-spot extraction and hydraulic containment, was implemented in 2007 and is ongoing. U.S. EPA (2009) provided an OPS determination for OU-1B South on 31 December 2009.

The ROD for IRP Site 3 (OU-1B) specifies IC objectives to be achieved through land-use controls. The *Final Remedial Design Report* (Engineering/Remediation Resources Group, Inc. 2007) includes a LUC RD that provides information on implementing and maintaining ICs.

The land-use restrictions for the VOC-impacted groundwater plume area are incorporated into the quitclaim deed and CRUP to limit the exposure to the groundwater and to maintain the integrity of the corrective action. Buffer zones within the ARIC for the OU-1B South VOC plume within CO-6 are considered sufficient for protecting CO-9.

Following the transfer of property adjacent to CO-9 from the DON to the City in May 2002 (DON 2002e,f,g), a portion of the TCE plume associated with IRP Site 5S(a) was discovered to exist to the south and west of CO-9 beneath City property (Figure 6). The DON has notified appropriate adjacent property owners and is responding to the impacts outside of CO-9 via monitored natural attenuation in accordance with CERCLA protocols and the BCT-approved *Final Operation and Maintenance Plan* (ATJV 2015b).

7. COVENANTS

The deed(s) for transfer of COs 2 and 9 on which “any hazardous substance was stored for one year or more, [or] known to have been released, or disposed...” as a result of former activities conducted by the U.S. will include a covenant made pursuant to CERCLA §§ 120(h)(3)(A)(ii) and (B). The covenant will warrant that “all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to CERCLA § 120(h)(3)(A)(i)(I) remaining on the property has been taken before the date of transfer” and that “any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States.” This covenant will not apply to any remedial action required on COs that is the result of an act or omission of the transferee that causes a new release of hazardous substances.

8. ACCESS CLAUSE

Pursuant to CERCLA § 120(h)(3)(A)(iii) [42 U.S.C. § 9620(h)(3)(A)(iii)] and DOD (2007) Instruction No. 4165.72, any deed(s) transferring COs 2 and 9 will contain a clause retaining and reserving to the U.S. (DON and U.S. EPA) and State of California (DTSC and RWQCB) a perpetual and assignable easement and right of access on, over, and through the FOST property to enter upon COs 2 and 9 in any case in which remedial or corrective action is ongoing or found to be necessary on the part of the U.S. after the date of such transfer, without regard to whether such remedial or corrective action is on COs 2 or 9 or adjoining or nearby lands. In addition, the deed(s) will provide for a right of access for the U.S. to traverse property owned by the transferee to gain access to property still owned by the U.S.

9. FINDING OF SUITABILITY TO TRANSFER

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deed(s), COs 2 and 9 at Former MCAS Tustin are suitable for transfer.

Date: 2 March 2017

Signature: _____

Lawrence Lansdale, PE

Environmental Director

Base Realignment and Closure Program Management Office

Naval Facilities Engineering Command

By Direction

10. REFERENCES

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TABLES

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Table 1: Environmental Requirements and Notifications

Environmental Factors Considered	Applicable to Property Carve-Out	
	2	9
Presence of Hazardous Substances (Notification)	Yes	Yes
CERCLA/RCRA (Response/Corrective Action)	Yes	Yes
Presence of Petroleum Products and Derivatives	Yes	Yes
USTs/ASTs (Closure/Removal)	No	No
Munitions and Explosives of Concern – Response Actions	No	No
Asbestos-Containing Material	No	No
Lead-Based Paint	No	No
Polychlorinated Biphenyls	No	No
Pesticides (Agricultural)	Yes	Yes

Acronyms and Abbreviations:

AST = aboveground storage tank
 CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 MCAS = Marine Corps Air Station
 RCRA = Resource Conservation and Recovery Act
 UST = underground storage tank

Table 2: Areas of Concern

AOC ID	Building Number/ Location	Description	Report	Closure Status Letter Agency/Date	Notes
Carve-Out 2					
Storage, Temporary (ST)-35	Former Building 556	Inactive Former Temporary Storage	<i>Closure Report</i> (December 2000) ¹	Base Realignment and Closure Cleanup Team (BCT)—Signed No Further Action (NFA) Concurrence (22 February 2001)	Former Building 556 was operated by Marine Aviation Logistics Squadron (MALS)-16 for storage of hazardous materials. It was constructed in 1990. The unit (concrete) was specially designed for storage of hazardous materials. Hazardous materials stored in this unit included resin-based and corrosive-type adhesives, methyl ethyl ketone, sealing compound, PD-680, petroleum and synthetic oils, paint-related materials, hydraulic fluids, and grease. The unit consisted of five walled cells over an area of approximately 80 by 38 feet. Different types of chemicals (and compatibles) were stored in each cell on steel racks/pallets. In addition, the unit was split into four sections separated by 6-inch berms. Materials were stored in 5- or 55-gallon drums stacked on wooden pallets in these sections. A catch sump (2 by 2 feet) was located inside each cell and section. A sump also ran along the center of the unit. Additional sumps were located along the outside perimeter of the unit along where 55-gallon drums were stored on steel pallets. A 2-foot-high containment wall was located north of the unit. A portion of this wall had developed cracks and was considered the only threat to the overall integrity of the unit. Dates of operation were from 1990 to 1999.
ST-36	Former Building 267	Inactive Former Temporary Storage	<i>Closure Report</i> (December 2000) ¹	BCT—Signed NFA Concurrence (22 February 2001)	Former Building 267 was operated by MALS-16 for storage of hazardous materials. It was constructed in 1981. The unit (concrete) consisted of shelves formerly used to store 1- to 5-gallon-capacity cans. Materials used for maintenance and cleaning operations were stored in this unit, typically in 5- to 55-gallon drums. The unit measured 15 by 10 feet. Hazardous materials stored in the unit included paints, thinners, and solvents. Materials were usually ordered and stored on an as-needed basis; hence, holding time in the unit was limited. A list of materials was maintained and updated regularly by the operating division. The overall integrity of the unit was good. An exhaust system was in place and in working condition. A flammable liquid storage cabinet was located along the outside wall (northwest) of the unit. Materials were checked out as required by users. Dates of operation were from 1981 to 1999.
Miscellaneous, Wash Area 25	Former Building 568	Inactive Former Wash Area	<i>Closure Report</i> (2000) ¹	BCT—Signed NFA Concurrence (22 June 2000)	This former wash area was located in the southwest corner of former Building 568 (armory) and was connected to Treatment, Oil/Water Separator X6. Dates of operation were from an unknown year to 1999.
Treatment, Oil/Water Separator X6	Former Building 568	Inactive Former Oil/Water Separator (OWS)	<i>Closure Report</i> (2000) ¹	BCT—Signed NFA Concurrence (22 June 2000)	This was a 680-gallon-capacity, concrete OWS located in the southwest corner of former Building 568 (armory). According to the <i>OWS Survey</i> , ¹ OWS-568 received wastewater from mop washing activities with discharge channeled to the sanitary sewer system. Wastes were generated from cleaning 50-caliber guns in the building. Dates of operation were from an unknown year to 1999.

Table 2: Areas of Concern

AOC ID	Building Number/ Location	Description	Report	Closure Status Letter Agency/Date	Notes
Installation Restoration Program (IRP) Site 6	Former Building 250	Inactive Former Paint Locker and Drum Storage Area	<i>Final Record of Decision (ROD)/Remedial Action Plan (RAP) for Operable Unit (OU) 4B</i> (U.S. Department of the Navy [DON] 2010)	California Department of Toxic Substances Control (DTSC 2010) California Regional Water Quality Control Board, Santa Ana Region (RWQCB 2010) United States Environmental Protection Agency (U.S. EPA 2010)	<p>IRP Site 6 is located in the southern portion of Former Marine Corps Air Station (MCAS) Tustin, north of Jamboree Road. The site was formerly occupied by Building 250 and was used as a paint locker and drum storage area from 1972 to 1981. Building 250 was also used as a receiving and distribution center for MCAS Tustin supplies. An aerial photograph from 1976 showed evidence of aboveground storage tank locations near the northwest corner of the site and a former drainage ditch that crossed the site in an approximately northeast/southwest direction.</p> <p>The <i>Initial Assessment Study</i> (Brown and Caldwell Consulting Engineers 1985) reported that an estimated 53 gallons of waste was potentially released to soil from an average of 100 drums stored at the site at any given time. In addition to the drum storage, an average of 2 gallons per month of waste Alodine, a corrosion inhibitor for aluminum, was reportedly disposed of at IRP Site 6. An estimated 20% of the waste Alodine was rinsed with water onto the grass, and 80% was disposed directly onto the grass. An estimated 225 gallons of this solution, which contains chromic acid, cyanide, and fluoride, was disposed by this method from 1972 to 1981 (Bechtel Environmental, Inc. 2004).</p> <p>Previous investigations and groundwater monitoring at IRP Site 6 indicated trichloroethene (TCE) concentrations exceeding the California maximum contaminant level (MCL) of 5 micrograms per liter (µg/L) and 1,1-dichloroethene concentrations exceeding the California MCL of 6 µg/L in the first water-bearing zone.</p> <p>As documented in the <i>Final ROD/RAP</i> (DON 2010), the remedy selected for groundwater at IRP Site 6 is in situ bioremediation, monitored natural attenuation, and institutional controls; soil at IRP Site 6 requires no further action. The remedial action was implemented to achieve site-specific remedial action objectives (RAOs) and remediation goals (RGs) (DON 2010).</p> <p>The <i>Final ROD/RAP</i> (DON 2010) identified TCE and 1,1-dichloroethene as chemicals of concern (COCs) in groundwater. The IRP Site 6 COC plume is located mostly within CO-2, which is leased to the City of Tustin (City) through a <i>Lease in Furtherance of Conveyance</i> (DON 2002d). IRP Site 6 consists of commercial development, including parking lots, streets, and minor landscaping associated with adjacent businesses.</p> <p>A <i>Final Operating Properly and Successfully (OPS) Demonstration Report</i> for IRP Site 6 was completed and issued on 22 February 2016 by AIS-TN & Associates Joint Venture (ATJV 2016). U.S. EPA concurred with the OPS determination for IRP Site 6 in letter dated 17 February 2016 (U.S. EPA 2016). DTSC concurrence was obtained via an e-mail dated 9 November 2015 (DTSC 2015), and RWQCB concurred via a letter dated 6 November 2015 (RWQCB 2015).</p>
Carve-Out 9					
IRP Site 5S(a)	Southeast of former Aircraft Hangar No. 2	Drainage Area No. 1 – Ditch 5a South	<i>Final ROD/RAP for OU-4B</i> (DON 2010)	DTSC (2010) RWQCB (2010)	IRP Site 5S(a) – Drainage Area No. 1 – Ditch 5a South, is located in the southern portion of Former MCAS Tustin, southeast of former Aircraft Hangar No. 2 (Building 29). IRP Site 5S(a) was formerly part of a culvert system that collected surface-water runoff from most of the northwestern portion of Former MCAS Tustin

Table 2: Areas of Concern

AOC ID	Building Number/Location	Description	Report	Closure Status Letter Agency/Date	Notes
				U.S. EPA (2010)	<p>and was connected to several existing and former buildings (e.g., Building 29). During the period of MCAS Tustin operations, a variety of contaminants including fuels, oils, lubricants, and solvents may have drained into IRP Site 5S(a) through building floor drains connected to the culvert system. IRP Site 5S(a) also received surface-water runoff from other IRP sites (including 11, 12, 13S, and 13W) and several AOCs. Materials handled at these sites included waste oils, cleaning solvents, hydraulic fluids, diesel fuel, gasoline, paint stripper, battery acids, and other chemical wastes (Bechtel Environmental, Inc. 2004). The former drainage ditch located at IRP Site 5S(a) was diverted and backfilled by the City and its sublessees.</p> <p>The <i>Final ROD/RAP</i> (DON 2010) identified TCE in groundwater to be the COC. The remedy selected for groundwater is in situ bioremediation, monitored natural attenuation, and institutional controls; soil requires NFA. The remedial action was implemented to achieve site-specific RAOs and RGs (DON 2010). A portion of the IRP Site 5S(a) TCE plume is located within CO-9, which is leased to the City through a <i>Lease in Furtherance of Conveyance</i> (DON 2002d).</p> <p>IRP Site 5S(a) consists of undeveloped and developed property, including portions of the newly constructed Tustin Ranch Road and Park Avenue and associated sidewalks and landscaping. The northern portion of IRP Site 5S(a), northeast of Warner Avenue, is currently an open, partially grass-covered area intersected by Tustin Ranch Road. IRP Site 5S(a) north of Warner Avenue is designated as "Residential Core" (City 1998, 2012). Residential apartments are present in the area immediately north of IRP Site 5S(a).</p> <p>A <i>Final OPS Demonstration Report</i> was completed and issued on 22 February 2016 by ATJV (2016). U.S. EPA concurred with the OPS determination for IRP Site 5S(a) in letter dated 17 February 2016 (U.S. EPA 2016). DTSC concurrence was obtained via an e-mail dated 9 November 2015 (DTSC 2015), and RWQCB concurred via a letter dated 6 November 2015 (RWQCB 2015).</p>

Acronyms and Abbreviations:

AOC = area of concern
 ATJV = AIS-TN & Associates Joint Venture
 BCT = Base Realignment and Closure Cleanup Team
 CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 City = City of Tustin
 COC = chemical of concern
 DON = U.S. Department of the Navy
 DTSC = California Environmental Protection Agency/Department of Toxic Substances Control
 ID = identification
 IRP = Installation Restoration Program
 MALS = Marine Aviation Logistics Squadron
 MCAS = Marine Corps Air Station

NFA = no further action
 OPS = operating properly and successfully
 OWS = oil/water separator
 RAP = Remedial Action Plan
 RAO = Remedial Action Objective
 RG = Remediation Goal
 ROD = Record of Decision
 RWQCB = California Regional Water Quality Control Board, Santa Ana Region
 ST = Storage, Temporary
 TCE = trichloroethene
 U.S. EPA = United States Environmental Protection Agency

Note:

¹An exact reference for this document is not available.

Table 3: Remedy Components to be Protected

Identification	Purpose
Carve-Out 2/IRP Site 6 (Figure 4)	
I006MW01S	Groundwater Monitoring Well
I006MW01D	Groundwater Monitoring Well
I006MW02S	Groundwater Monitoring Well
I006MW03SR	Groundwater Monitoring Well
I006MW04SR	Groundwater Monitoring Well
I006MW05S	Groundwater Monitoring Well
I006MW07S	Groundwater Monitoring Well
I006MW08S	Groundwater Monitoring Well
I006MW09S	Groundwater Monitoring Well
Carve-Out 9/IRP Site 5S(a) (Figure 6)	
BMW07S	Groundwater Monitoring Well

Source:

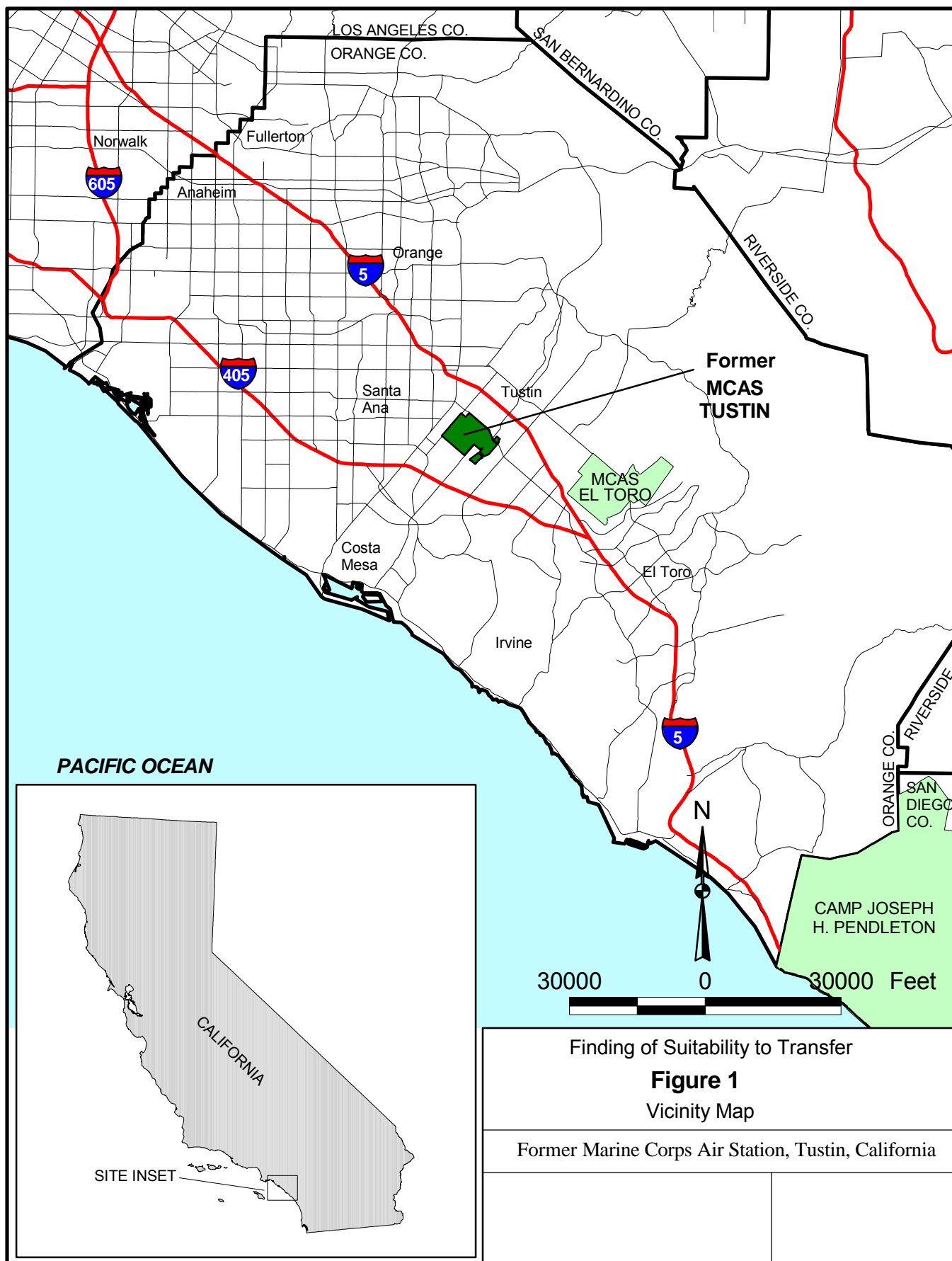
AIS-TN & Associates Joint Venture. 2015b. *Final Operation and Maintenance Plan for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area, Operable Unit 4B, Former Marine Corps Air Station Tustin, Tustin, California*. August.

Acronyms and Abbreviations:

IRP = Installation Restoration Program
MW = monitoring well

FIGURES

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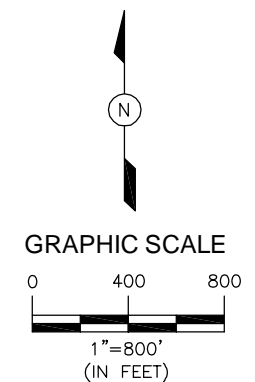
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- Legend**
- Navy Carve-Out (CO) Property (CO-5 and CO-6)
 - FOST #9 Carve-Out (CO-2 and CO-9)
 - Moderate Concentration IRP Sites 5S(a) and 6
 - Former MCAS Boundary
 - Navy Property Previously Transferred under Carve-Outs (CO-1, CO-4, CO-7 and CO-8)

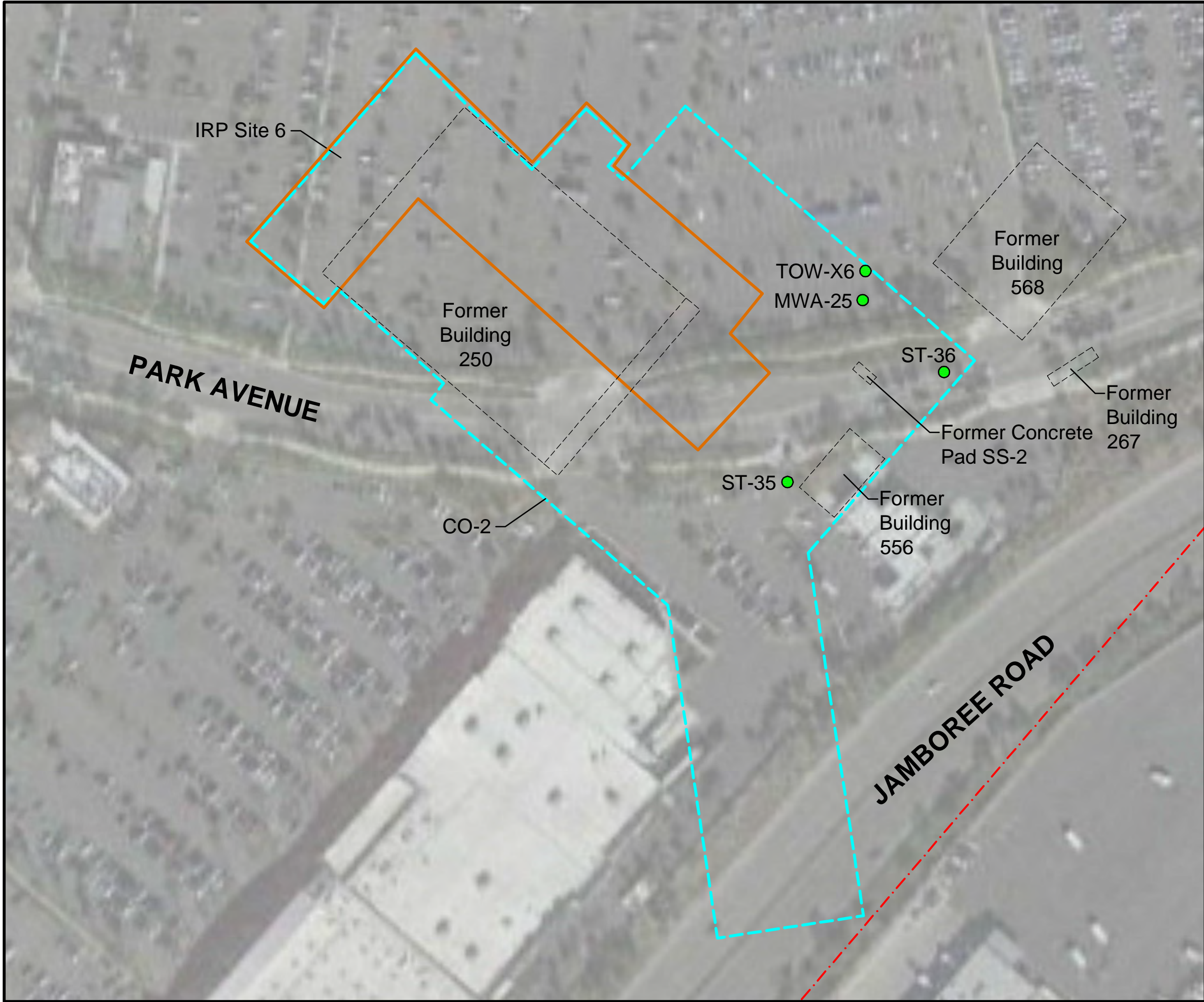
Notes:
CO - Carve-Out
FOST - Finding of Suitability to Transfer
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station

Source:
AIS-TN & Associates Joint Venture (ATJV). Final
Operating Property and Successfully Demonstration
Report, Installation Restoration Program Sites 5S(a),
6, and the Mingled Plumes Area, Operable Unit 4B,
Former Marine Corps Air Station Tustin, California,
February 2016.








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Figure 2
Carve-Out Areas Location Map
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California



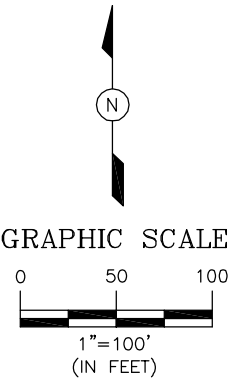
Legend

-  Navy Carve-Out (CO-2) Property
-  IRP Site 6
-  Former MCAS Boundary
-  Former Building
-  AOC with NFA Concurrence

Notes:
AOC - Area of Concern
CO - Carve-Out
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station
NFA - No Further Action

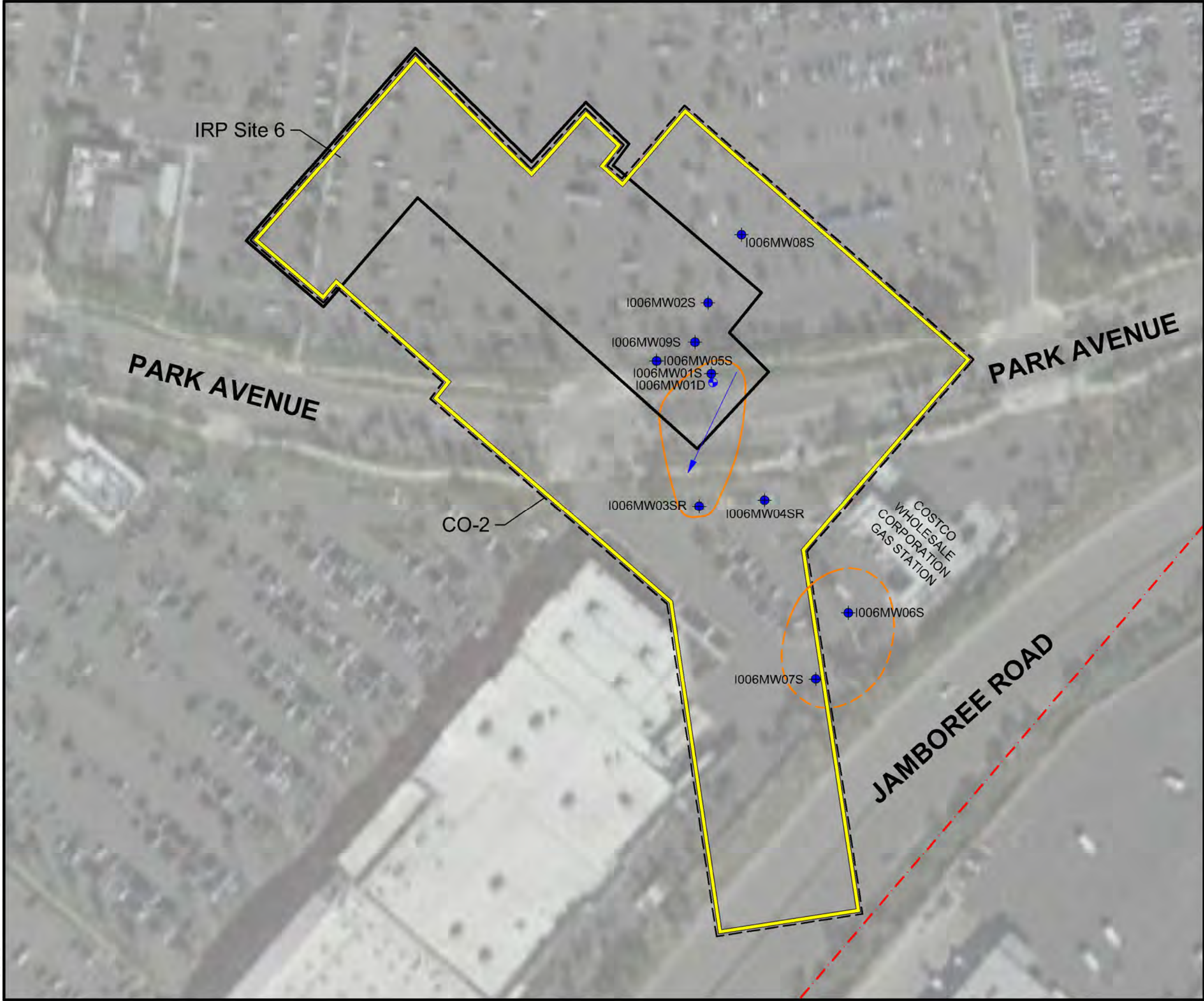
Source:
U.S. Department of the Navy (DON). Finding of Suitability to Lease for Southern Parcels Carve-Out Areas 1, 2, 3, and 4, Marine Corps Air Station Tustin, Tustin, CA. 30 April 2002.

Areas of Concern	
AOC Name	AOC Description
MWA	Miscellaneous, Wash Area
ST	Storage, Temporary
TOW	Treatment, Oil/Water Separator



Final

Figure 3
Carve-Out 2
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California



Legend

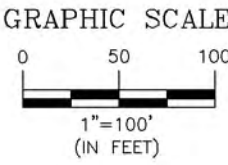
- Monitoring Well (1st WBZ)
- Monitoring Well (2nd WBZ)
- Navy Carve-Out (CO-2) Property
- ARIC
- Former MCAS Boundary
- IRP Site 6
- Approximate extent of 1,1-DCE in GW exceeding the remediation goal of 6 µg/l, 1st WBZ (June 2016), Dashed where inferred
- Generalized Direction of Groundwater Flow (June 2016)

Notes:
ARIC - Area Requiring Institutional Controls
1,1-DCE - 1,1-Dichloroethene
DON - Department of the Navy
FOST - Finding of Suitability to Transfer
GW - Groundwater
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station
µg/l - Micrograms Per Liter
WBZ - Water-Bearing Zone

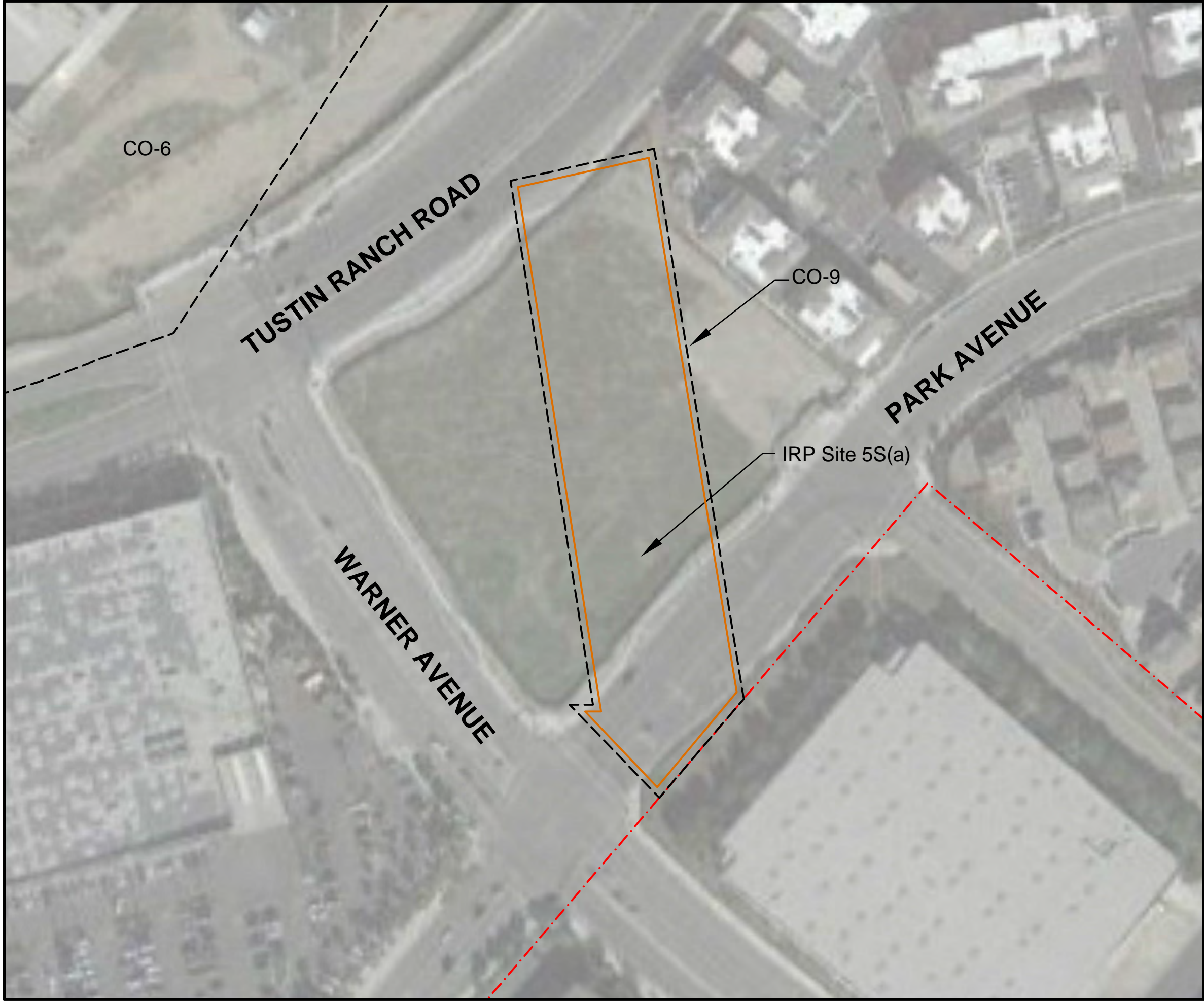
ARIC boundaries shown are approximate. Final ARIC boundaries will be established by professional land survey.

Monitoring well I006MW06S is located outside of the ARIC but is shown for the purpose of completeness. This well (and those within the ARIC) is being protected pursuant to the *Final Land Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area* (ATJV 2015b).




Source:
RORE, Inc. 2016. Final 2016 Semiannual Data Update, Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area, Former Marine Corps Air Station Tustin, Tustin, California. September.



Final
Figure 4
Carve-Out 2
Area Requiring Institutional Controls
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California

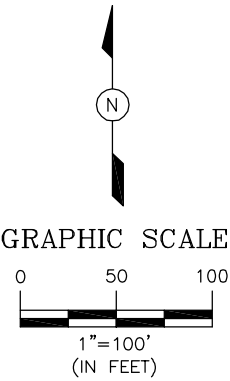


Legend

-  Navy Carve-Out (CO-9) Property
-  Former MCAS Boundary
-  IRP Site 5S(a)

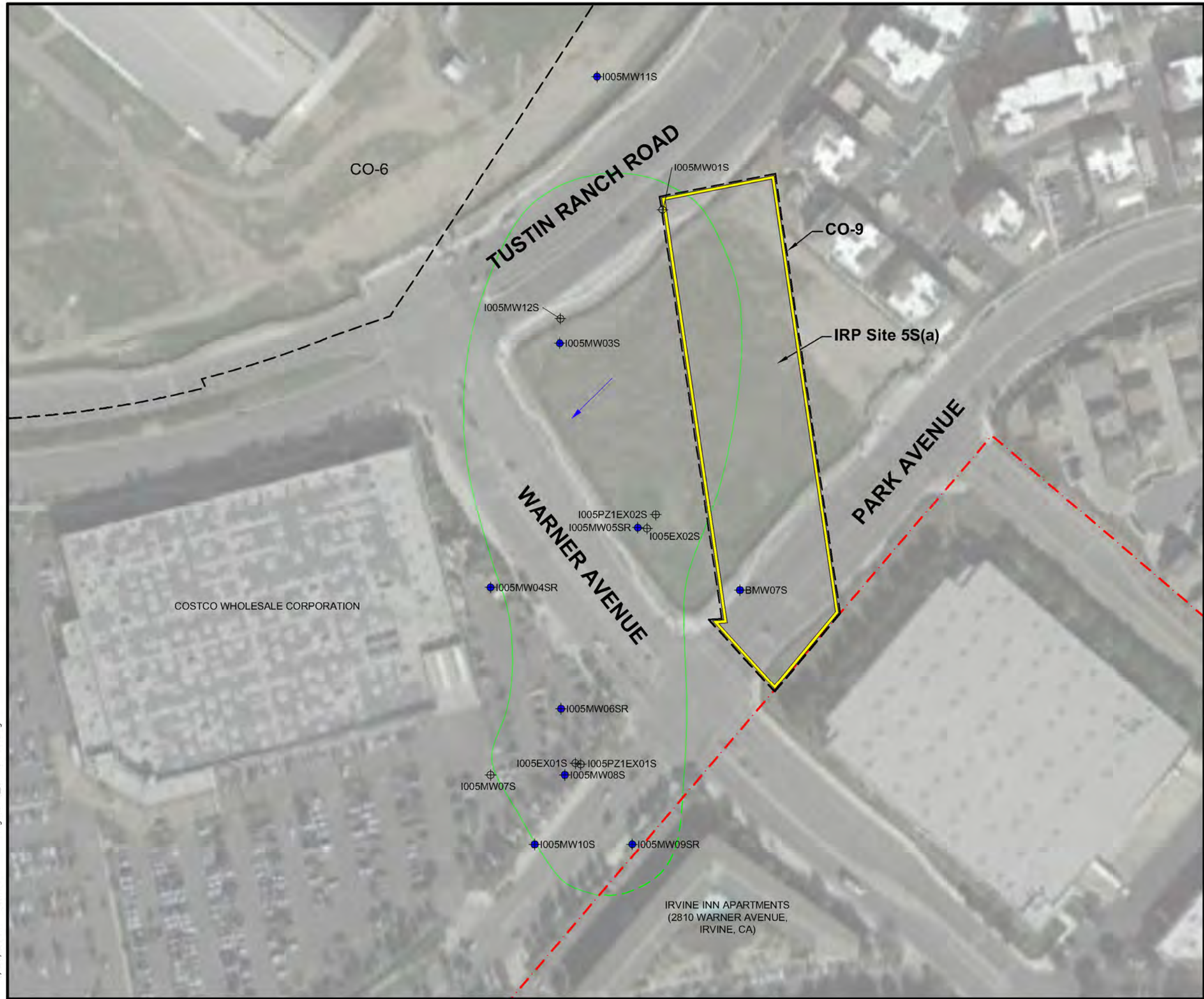
Notes:
CO - Carve-Out
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station

Source:
U.S. Department of the Navy (DON). Finding of
Suitability to Lease for Carve-Out Areas 5, 6, 7, 8, 9,
10, and 11, Marine Corps Air Station Tustin, Tustin,
CA. 26 April 2002



Final

Figure 5
Carve-Out 9
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California



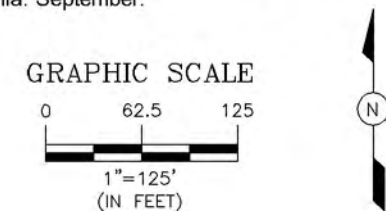
- Legend**
- ISB/MNA Monitoring Well (1st WBZ)
 - Monitoring Well (1st WBZ)
 - Navy Carve-Out (CO-9) Property
 - ARIC
 - Former MCAS Boundary
 - Approximate extent of TCE in GW exceeding the remediation goal of 5 µg/l, 1st WBZ (June 2016), Dashed Where Inferred
 - Generalized Direction of Groundwater Flow (June 2016)

Notes:
ARIC - Area Requiring Institutional Controls
DON - Department of the Navy
FOST - Finding of Suitability to Transfer
GW - Groundwater
IRP - Installation Restoration Program
ISB - In Situ Bioremediation
MCAS - Marine Corps Air Station
MNA - Monitored Natural Attenuation
TCE - Trichloroethene
µg/l - Micrograms Per Liter
WBZ - Water-Bearing Zone

ARIC boundaries shown are approximate. Final ARIC boundaries will be established by professional land survey.

Monitoring wells located outside of the ARIC are shown for the purpose of completeness. These wells (and the one within the ARIC) are being protected pursuant to the *Final Land Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area (ATJV 2015b)*.

Source:
RORE, Inc. 2016. Final 2016 Semiannual Data Update, Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area, Former Marine Corps Air Station Tustin, Tustin, California. September.



Final

Figure 6
Carve-Out 9
Area Requiring Institutional Controls
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California

ATTACHMENT 1
Responses to Comments

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Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

Reviewer: Omoruyi Patrick, PE, Hazardous Substances Engineer, Brownfields and Environmental Restoration Program, California Department of Toxic Substances Control, letter dated 14 December 2016

Comment No.	Section/ Page No.	Comment	Response
1.	Not Applicable	The California Department of Toxic Substances Control (DTSC) has reviewed the above-referenced document for the Former MCAS Tustin request for regulatory concurrence. Based on the FOST document review for Carve-outs #2 and 9, DTSC concurs with the FOST provided notices, restrictions, covenants, and access clause are contained in the deeds for COs #2 and 9, including all other applicable requirements contained in the approved Project Environmental Review Form.	The U.S. Department of the Navy appreciates DTSC's comprehensive review of and concurrence with this document.

Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

Reviewer: Patricia A. Hannon, PG, Engineering Geologist, Land Disposal and DoD Section, California Regional Water Quality Control Board, Santa Ana Region, letter dated 13 December 2016

Comment No.	Section/ Page No.	Comment	Response
1.	Not Applicable	We have completed our review of the above-referenced report dated November 2, 2016. The report summarizes the environmental conditions and provides notification for hazardous substances, petroleum products and other regulated materials within Carve-Out areas 2 (IRP-6, ST-35, ST-36, MWA-25 and TOW-X6) and 9 (IRP-5SA) in preparation for transfer of these properties. We do not have any comments on the draft FOST #9.	The U.S. Department of the Navy appreciates the California Regional Water Quality Control Board, Santa Ana Region's comprehensive review of and concurrence with this document.

Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

Reviewer: Mary Aycock, Remedial Project Manager, United States Environmental Protection Agency, Region 9, e-mail dated 13 December 2016

Comment No.	Section/ Page No.	Comment	Response
1.	Not Applicable	EPA does not currently have an attorney assigned to Tustin. My management has agreed that we will defer to DTSC on the FOST for Tustin as it is a state-lead site. Thanks for the opportunity to review the document.	The U.S. Department of the Navy understands the U.S. Environmental Protection Agency's deference to the California Department of Toxic Substances Control, which concurred with the draft version.

Document Title: Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated 2 November 2016

Reviewer: Matthew S. West, Deputy City Manager, City of Tustin, letter dated 2 December 2016

Comment No.	Section/ Page No.	Comment	Response
1.	Section 2 Second Bullet (Page 1)	It is stated that the “remainder of CO-9 crosses Warner Avenue and includes a portion of a parking lot supporting commercial businesses (Figures 2 and 6).” Please note the only improvements within CO-9 include portions of the newly constructed Tustin Ranch Road and Park Avenue, which include sidewalks and landscape areas. There currently are no commercial businesses or parking lots located within CO-9. In addition, it is also noted that the “area immediately adjacent to CO-9 to the north is currently under construction with new residential apartments.” Please note the construction for that parcel has been completed.	<p>This bullet has been corrected to state the following. The corresponding verbiage in Table 2 and Attachment 3 has also been corrected similarly.</p> <p><i>CO-9 (Figures 5 and 6) consists of approximately 2 acres and contains no buildings or structures related to operations at the former Station; currently, CO-9, which is leased to the City under a LIFO (DON 2002d), consists of developed and undeveloped property, including portions of the newly constructed Tustin Ranch Road and Park Avenue and associated sidewalks and landscaping. The northern portion of CO-9, northeast of Warner Avenue, is currently an open, partially grass-covered area intersected by Tustin Ranch Road. According to the City’s (1998, 2012) MCAS Tustin Specific Plan/Reuse Plan, CO-9 north of Warner Avenue is designated as “Residential Core”. Residential apartments are present in the area immediately north of CO-9.</i></p>
2.	Section 4.4 (Page 6)	It is stated that there are no unacceptable vapor risks, yet the report also states the deed shall contain a clause wherein the transferee is notified that there is a potential vapor intrusion risk. Why is the potential for vapor risk being called out if the Navy has concluded that there are no unacceptable vapor risks? Isn’t there potential risk that any environmental issue associated with the property	<p>As indicated in this section as well as in the introduction to Section 4, the deed notification of potential vapor intrusion risks is required by the <i>DERP Management Manual</i> (U.S. Department of Defense 2012) and necessary for consistency with previous notifications in <i>Findings of Suitability to Lease (FOSLs) #2 and #3</i>. For clarity, the beginning of the first sentence of the last paragraph of Section 4.4 has been revised as follows:</p> <p><i>In accordance with previous notifications and restrictions made in FOSL #2 (DON 2002c) and FOSL</i></p>

Document Title: Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated 2 November 2016

Reviewer: Matthew S. West, Deputy City Manager, City of Tustin, letter dated 2 December 2016

Comment No.	Section/ Page No.	Comment	Response
		could present itself? Why is this one identified specifically? The statement is confusing at best and inherently contradictory.	<p>#3 (DON 2002b) as well as guidance provided in the requirements of the DERP Management Manual (DoD 2012)...</p> <p>Although both FOSLs #2 and #3 contained restrictions related to indoor air quality, as noted in Section 4.4, no occupancy restrictions are currently necessary as there are no existing buildings. Therefore, the phrase “and restrictions” was removed from the introductory sentence.</p>
3.	Section 5 First Paragraph (Page 6) and Figures 4 & 6	It is stated that “the ARICs for IRP Sites 6 and 5S(a) are respectively coincident with the legal boundaries of CO-2 and CO-9.” This section further describes how land-use restrictions will be implemented on the ARICs by two separate legal instruments: Quitclaim Deeds and Covenants to Restrict Use of Property. The statement that the ARICs coincide with CO boundaries is inconsistent with Figures 4 and 6 that depict both On-Site and Off-Site ARICs. As it pertains to the legal instruments to implement the land-use restrictions, please clarify how these will be implemented for previously transferred property.	<i>Finding of Suitability to Transfer #9</i> applies only to property currently owned by the U.S. Department of the Navy (DON). Therefore, the Off-Site Areas Requiring Institutional Controls (ARICs) have been removed from Figures 4 and 6 (see attached).
4.	Section 6 (Page 7)	This section discusses the adjacent properties that were previously found suitable for transfer thus having no impact on COs 2 and 9, yet both COs	<p>Agreed. The last sentence of Section 6.1 will be deleted and replaced with the following:</p> <p><i>Following the transfer of property adjacent to CO-2</i></p>

Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

Reviewer: Matthew S. West, Deputy City Manager, City of Tustin, letter dated 2 December 2016

Comment No.	Section/ Page No.	Comment	Response
		are adjacent to property with contamination discovered post-transfer. It would seem appropriate to discuss the adjacent properties associated with IRPs 5S(a) and 6 in this section as well.	<p>from the DON to the City in May 2002 (DON 2002e,f), an isolated portion of the 1,1-DCE plume associated with IRP Site 6 was discovered outside of the southeastern portion of CO-2 adjacent to the Costco Wholesale Corporation gasoline station (Figure 4). The DON has notified the City and Costco Wholesale Corporation and is responding to the impacts outside of CO-2 via monitored natural attenuation in accordance with CERCLA protocols and the BCT-approved Final Operation and Maintenance Plan (ATJV 2015b).</p> <p>The following text will be added to the end of Section 6.2:</p> <p><i>Following the transfer of property adjacent to CO-9 from the DON to the City in May 2002 (DON 2002e,f,g), a portion of the TCE plume associated with IRP Site 5S(a) was discovered to exist to the south and west of CO-9 beneath City property (Figure 6). The DON has notified appropriate adjacent property owners and is responding to the impacts outside of CO-9 via monitored natural attenuation in accordance with CERCLA protocols and the BCT-approved Final Operation and Maintenance Plan (ATJV 2015b).</i></p>
5.	Figure 6	a. The ownership table is noted to be current as of 1 January 2013, which is nearly four years before the date of this document. While the City is not familiar with any changes in ownership since 1	a. Neither the DON (2008) <i>Policy for Processing Findings of Suitability to Transfer or Lease</i> or the U.S. Department of Defense (2006) <i>Base Redevelopment and Realignment Manual</i> require that detailed property ownership information or Assessor Parcel Numbers (especially for non-DON property) be

Document Title: Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated 2 November 2016

Reviewer: Matthew S. West, Deputy City Manager, City of Tustin, letter dated 2 December 2016

Comment No.	Section/ Page No.	Comment	Response
		January 2013, the City requests the table to be noted current as of the date of the FOST document.	provided in a Finding of Suitability to Transfer, so this information has been removed from Figures 4 and 6.
		b. The ownership table does not appear to have all APNs listed correctly. For example, the Department of the Navy should also be noted to own 430-381-31 and a portion of 430-381-32. It is unclear where 434-441-32 is located. The City of Tustin also owns 430-381-74 & 84. Please verify.	b. Please see the response to City of Tustin Comment #5a above.
		c. Please clarify why the proposed Off-Site ARIC does not extend onto the property where the toe of the plume is located (southeast corner of Park Avenue and Warner Avenue).	c. <i>Finding of Suitability to Transfer #9</i> applies only to property currently owned by the DON. Therefore, the Off-Site ARIC has been removed from Figure 6 (see attached). Please also see the response to City of Tustin Comment #3 above, which indicates this same change has been made to Figure 4 (see attached).

Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

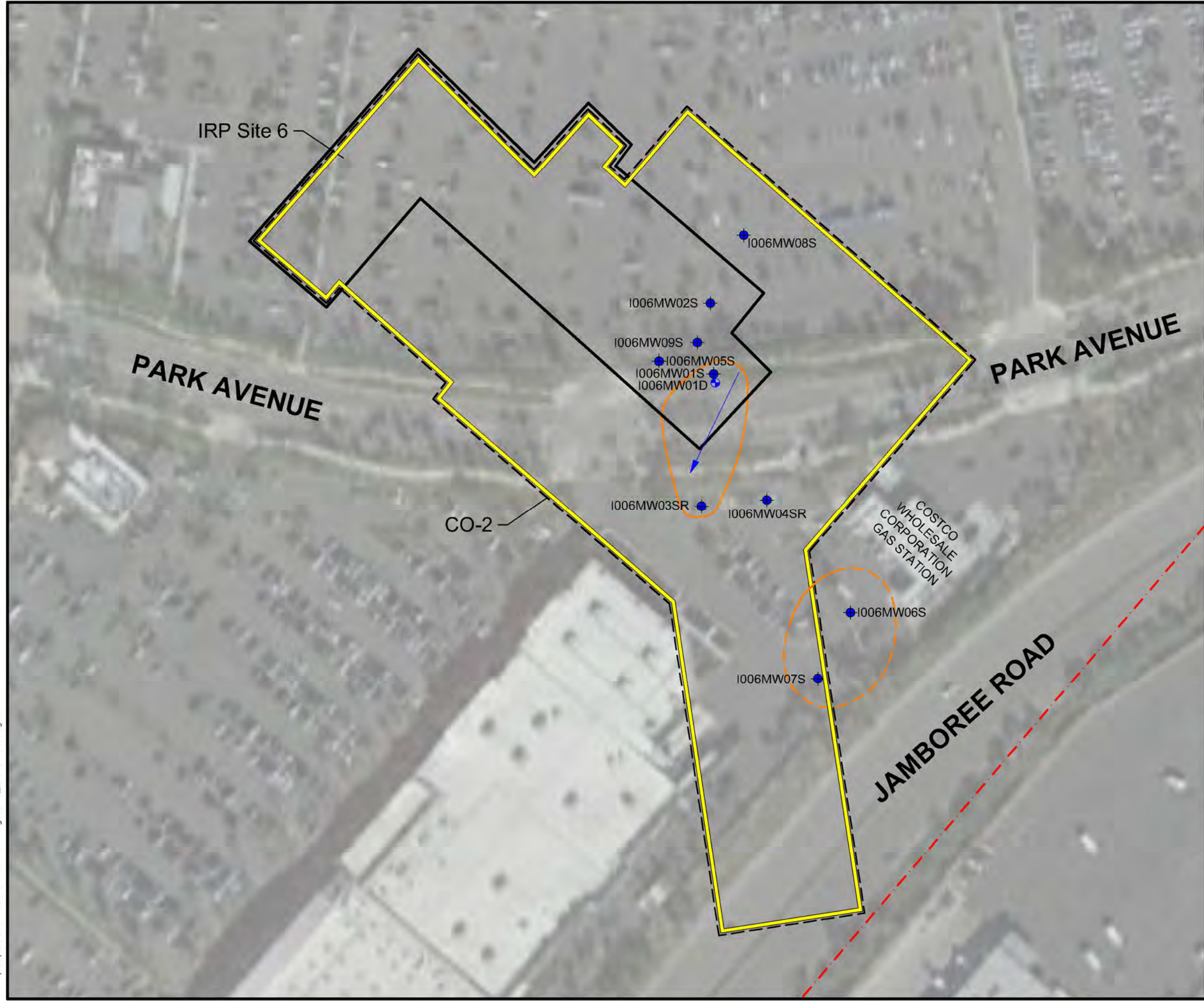
In addition to the edits/corrections made pursuant to the responses to comments outlined above, the U.S. Department of the Navy (DON) has made the following edits/corrections for clarity and completeness.

Change No.	Section/ Figure	Revision	Rationale
1.	Table of Contents; Sections 3 and 4; & Attachment Slip Pages	References to Attachment 2 (Unresolved Comments) have been eliminated and the remaining attachments have been renumbered accordingly.	Because there are no unresolved comments, there is no need for previously identified Attachment 2. As such, references to the subsequent attachments required renumbering.
2.	Section 4.1.1, Subsection Installation Restoration Program Site 6, Second to Last Paragraph; Table 2; & Attachment 3	The adverb “mostly” has been added to clarify that the Installation Restoration Program Site 6 constituent of concern plume is not entirely contained within Carve-Out (CO) 2.	Based on the DON’s response to City of Tustin Comment #4, the verbiage in this section, table, and attachment needed to be modified accordingly.
3.	Section 5, First Paragraph	Reference to Figures 4 and 6 was added to the end of the paragraph.	The reference to Figures 4 and 6 provides the reader with additional information with regard to the coincident boundaries of the areas requiring institutional controls (ARICs) for Installation Restoration Program Sites 6 and 5S(a) and legal boundaries of COs 2 and 9.
4.	Section 5, Third Paragraph & Section 10	The AIS-TN&A Joint Venture (ATJV 2015) reference has been updated to (2015a).	Based on the DON’s response to City of Tustin Comment #4, another ATJV reference from later in 2015 (2015b) needed to be cited at the end of Sections 6.1 and 6.2 and added to Section 10.
5.	Section 5, Last Paragraph, Last Sentence	A sentence-ending period has been added.	This sentence did not previously contain a period.
6.	Section 10	The reference for the <i>Final Operation and Maintenance Plan for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area</i> (ATJV 2015b) was added.	This reference (cited in Table 3) was missing.

Document Title: *Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California*, dated 2 November 2016

In addition to the edits/corrections made pursuant to the responses to comments outlined above, the U.S. Department of the Navy (DON) has made the following edits/corrections for clarity and completeness.

Change No.	Section/ Figure	Revision	Rationale
7.	Table 3	Remedy components located outside of the ARICs were deleted.	<i>Finding of Suitability to Transfer #9</i> applies only to property currently owned by the DON, so remedy components located outside of the ARICs needed to be deleted. The remedy components outside of the ARICs (as well as those inside the ARICs) are being protected pursuant to the <i>Final Land Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area</i> (ATJV 2015a).
8.	Section 10	Reference to the <i>Final 2016 Semiannual Data Update</i> (RORE, Inc. 2016) was added.	This reference (cited on Figures 4 and 6) was missing from Section 10.
9.	Section 10	References to Quitclaim Deeds D and H (DON 2002f,g) were added.	These references needed to be added based on the DON's response to City of Tustin Comment #4.



Legend

- Monitoring Well (1st WBZ)
- Monitoring Well (2nd WBZ)
- Navy Carve-Out (CO-2) Property
- ARIC
- Former MCAS Boundary
- IRP Site 6
- Approximate extent of 1,1-DCE in GW exceeding the remediation goal of 6 µg/l, 1st WBZ (June 2016), Dashed where inferred
- Generalized Direction of Groundwater Flow (June 2016)

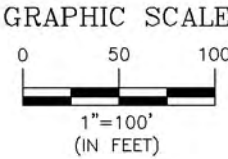
Notes:

ARIC - Area Requiring Institutional Controls
1,1-DCE - 1,1-Dichloroethene
DON - Department of the Navy
FOST - Finding of Suitability to Transfer
GW - Groundwater
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station
µg/l - Micrograms Per Liter
WBZ - Water-Bearing Zone

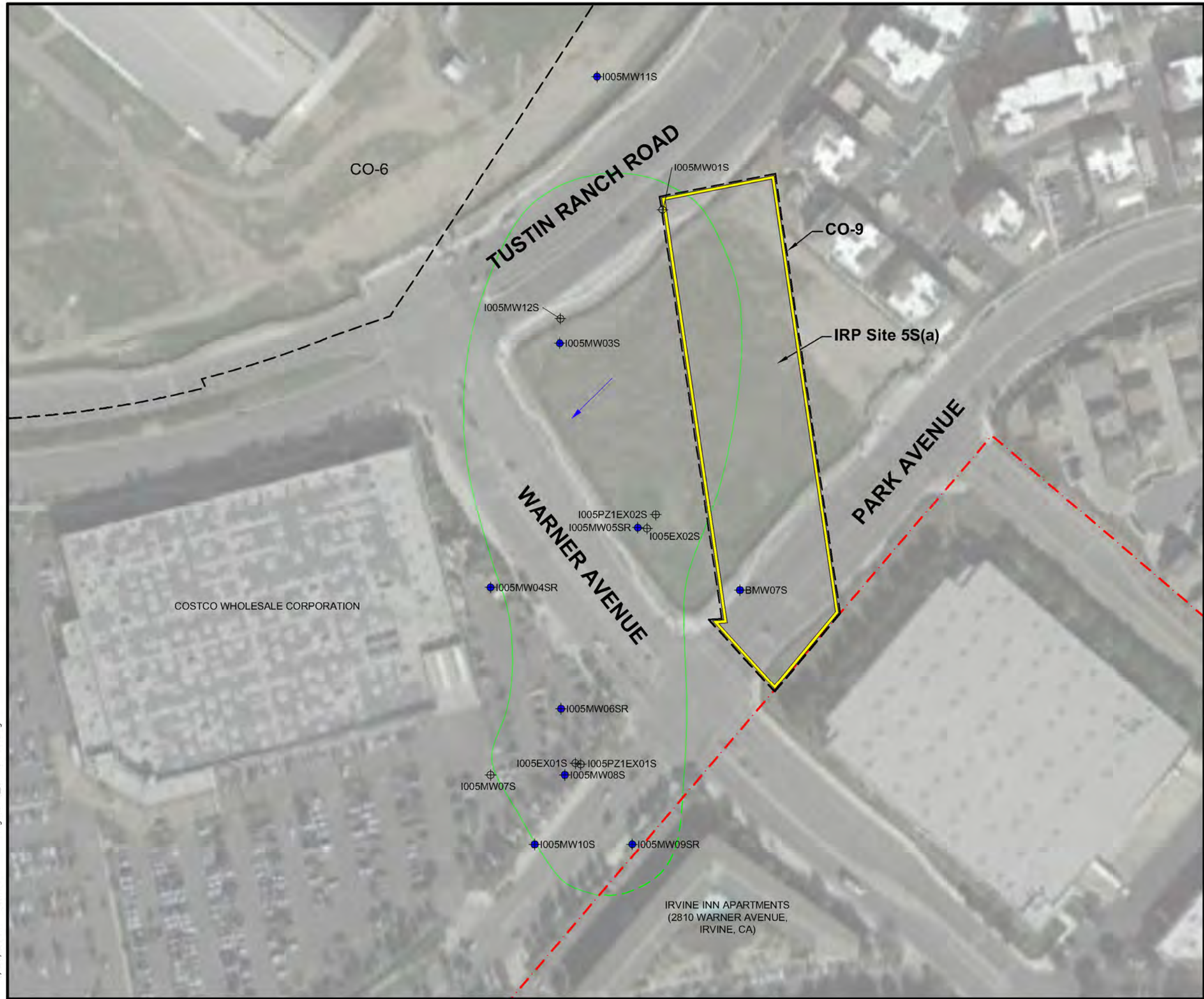
ARIC boundaries shown are approximate. Final ARIC boundaries will be established by professional land survey.

Monitoring well I006MW06S is located outside of the ARIC but is shown for the purpose of completeness. This well (and those within the ARIC) is being protected pursuant to the *Final Land Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area* (ATJV 2015b).

Source:
RORE, Inc. 2016. Final 2016 Semiannual Data Update, Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area, Former Marine Corps Air Station Tustin, Tustin, California. September.



Final
Figure 4
Carve-Out 2
Area Requiring Institutional Controls
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California



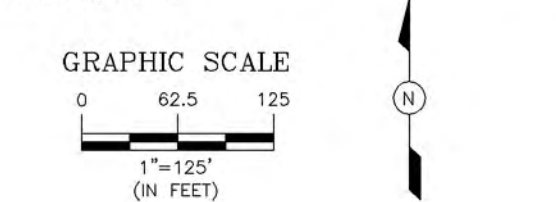
- Legend**
- ISB/MNA Monitoring Well (1st WBZ)
 - Monitoring Well (1st WBZ)
 - Navy Carve-Out (CO-9) Property
 - ARIC
 - Former MCAS Boundary
 - Approximate extent of TCE in GW exceeding the remediation goal of 5 µg/l, 1st WBZ (June 2016), Dashed Where Inferred
 - Generalized Direction of Groundwater Flow (June 2016)

Notes:
ARIC - Area Requiring Institutional Controls
DON - Department of the Navy
FOST - Finding of Suitability to Transfer
GW - Groundwater
IRP - Installation Restoration Program
ISB - In Situ Bioremediation
MCAS - Marine Corps Air Station
MNA - Monitored Natural Attenuation
TCE - Trichloroethene
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WBZ - Water-Bearing Zone

ARIC boundaries shown are approximate. Final ARIC boundaries will be established by professional land survey.

Monitoring wells located outside of the ARIC are shown for the purpose of completeness. These wells (and the one within the ARIC) are being protected pursuant to the *Final Land Use Control Remedial Design for Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area (ATJV 2015b)*.

Source:
RORE, Inc. 2016. Final 2016 Semiannual Data Update, Installation Restoration Program Sites 5S(a), 6, and the Mingled Plumes Area, Former Marine Corps Air Station Tustin, Tustin, California. September.



Final

Figure 6
Carve-Out 9
Area Requiring Institutional Controls
Finding of Suitability to Transfer #9
Former MCAS Tustin, Tustin, California

ATTACHMENT 2
Agency Correspondence

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U.S. Environmental Protection Agency

Dhananjay Rawal

From: Aycock, Mary <Aycock.Mary@epa.gov>
Sent: Tuesday, December 13, 2016 8:41 AM
To: Chammas, Guy A CIV
Cc: Omoruyi.Patrick@dtsc.ca.gov; Hannon, Patricia@Waterboards; Arnold, Content P CIV; Sullivan, James B CIV NAVFAC HQ, BRAC PMO; Henning, Loren; Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Hill, Amy J CIV NAVFAC HQ, BRAC PMO; Dhananjay Rawal
Subject: [Non-DoD Source] Re: Comments Due: Draft FOST #9 for Former MCAS Tustin

Guy:
EPA does not currently have an attorney assigned to Tustin. My management has agreed that we will defer to DTSC on the FOST for Tustin as it is a state-lead site. Thanks for the opportunity to review the document. MTA

Sent from my iPhone

> On Dec 12, 2016, at 12:44 PM, Chammas, Guy A CIV <guy.chammas@navy.mil> wrote:
>
> Fellow BCT Members:
> Just a friendly reminder that your concurrence or comments, if any, are due on the subject FOST. Please attempt to provide feedback as soon as possible so that the Navy can keep the property transfer process moving forward. Thank you.
>
> Guy Chammas, MS, PG, CPSS
> Remedial Project Manager
> Former Marine Corps Air Stations El Toro and Tustin U.S. Department of
> the Navy Base Realignment and Closure Program Management Office West
> 33000 Nixie Way, Building 50
> San Diego, CA 92147-5101
> 619.524.5922
> guy.chammas@navy.mil
>
>

Dhananjay Rawal

From: Aycock, Mary <Aycock.Mary@epa.gov>
Sent: Tuesday, January 24, 2017 9:19 AM
To: Chammas, Guy A CIV
Cc: Omoruyi.Patrick@dtsc.ca.gov; Hannon, Patricia@Waterboards; Henning, Loren; Sullivan, James B CIV NAVFAC HQ, BRAC PMO; West, Matt; Piguee, Kenneth; Dhananjay Rawal; AMaher@vestar.com; Giorgi, Erika@DTSC; Estrada, Thelma; Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Tencate, Michael D CIV NAVFAC SW; Hill, Amy J CIV NAVFAC HQ, BRAC PMO
Subject: [Non-DoD Source] Re: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

EPA has no comments and will defer to DTSC on the referenced document. MTA

Sent from my iPhone

> On Jan 24, 2017, at 9:16 AM, Chammas, Guy A CIV <guy.chammas@navy.mil> wrote:
>
> Fellow BCT Members:
> Attached for your concurrence (or additional comments, if any) are the U.S. Department of the Navy's (Navy's) responses to comments received on Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated October 2016. Also included are revised versions of Figures 4 and 6 and a list of Navy-initiated corrections that will be implemented for the final version, which is currently scheduled for publication next Tuesday, 31 January. If possible, please attempt to provide a response by this Friday, 27 January, so the Navy can maintain its schedule for finalization of this document. Thank you.
>
> Guy Chammas, MS, PG, CPSS
> Remedial Project Manager
> Former Marine Corps Air Stations El Toro and Tustin U.S. Department of
> the Navy Base Realignment and Closure Program Management Office West
> 33000 Nixie Way, Building 50
> San Diego, CA 92147-5101
> 619.524.5922
> guy.chammas@navy.mil
>
>
> <Final_Draft FOST#9_RTCs_01.24.17.pdf>

**California Regional Water Quality Control Board,
Santa Ana Region**



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

December 13, 2016

Attn: Mr. James B. Sullivan, BRAC Environmental Coordinator
Navy BRAC PMO West
33000 Nixie Way, Bldg 50
San Diego CA 92147

RESPONSE TO DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) #9 AT FORMER MARINE CORPS AIR STATION TUSTIN, ORANGE COUNTY GEOTRACKER ID: DOD100391700, DOD100393400, T10000006010

Dear Mr. James Sullivan:

We have completed our review of the above-referenced report dated November 2, 2016. The report summarizes the environmental conditions and provides notification for hazardous substances, petroleum products and other regulated materials within Carve-Out areas 2 (IRP-6, ST-35, ST36, MWA-25 and TOW-X6) and 9 (IRP-5SA) in preparation for transfer of these properties.

We do not have any comments on the draft FOST #9.

Should you have any questions regarding this letter, please contact me at (951) 782-4498, or by email at patricia.hannon@waterboards.ca.gov.

Sincerely,

Patricia A. Hannon, PG
Engineering Geologist
Land Disposal and DoD Section

cc via electronic copy:

Addressee: James.b.sullivan2@navy.mil

Mr. Guy Chammas, Navy BRAC PMO West, guy.chammas@navy.mil

Ms. Content Arnold, Navy BRAC PMO West, content.arnold@navy.mil

Mr. Omoruyi Patrick, Dept of Toxic Substances Control, Omoruyi.Patrick@dtsc.ca.gov

Ms. Mary Aycock, U.S. EPA, Region 9, aycock.mary@epa.gov

Mr. Loren Henning, U. S. EPA, Region IX, Henning.Loren@epa.gov

Mr. Matt West, City of Tustin, MWest@tustinca.org

Dhananjay Rawal

From: Hannon, Patricia@Waterboards <Patricia.Hannon@waterboards.ca.gov>
Sent: Thursday, January 26, 2017 8:07 AM
To: Chammas, Guy A CIV; Aycok, Mary; Patrick, Omoruyi@DTSC; 'Henning, Loren'
Cc: Sullivan, James B CIV NAVFAC HQ, BRAC PMO; West, Matt; Piguee, Kenneth; Dhananjay Rawal; AMaher@vestar.com; Giorgi, Erika@DTSC; Estrada, Thelma; Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Tencate, Michael D CIV NAVFAC SW; Hill, Amy J CIV NAVFAC HQ, BRAC PMO
Subject: [Non-DoD Source] RE: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Guy

RWQCB-8 does not have any comments on the Navy's Responses to Comments on Draft FOST #9 for Former MCAS Tustin.

Patricia Hannon, PG
Engineering Geologist
Land Disposal and DoD Section
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside CA 92501-3348
Direct: (951) 782-4498
Reception desk: (951) 782-4130
patricia.hannon@waterboards.ca.gov
Website: www.waterboards.ca.gov/santaana

-----Original Message-----

From: Chammas, Guy A CIV [<mailto:guy.chammas@navy.mil>]
Sent: Tuesday, January 24, 2017 9:16 AM
To: Aycok, Mary (Aycok.Mary@epa.gov); Patrick, Omoruyi@DTSC; Hannon, Patricia@Waterboards; 'Henning, Loren'
Cc: Sullivan, James B CIV NAVFAC HQ, BRAC PMO; West, Matt; Piguee, Kenneth; Dhananjay Rawal; AMaher@vestar.com; Giorgi, Erika@DTSC; Estrada, Thelma (Estrada.Thelma@epa.gov); Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Tencate, Michael D CIV NAVFAC SW; Hill, Amy J CIV NAVFAC HQ, BRAC PMO
Subject: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Fellow BCT Members:

Attached for your concurrence (or additional comments, if any) are the U.S. Department of the Navy's (Navy's) responses to comments received on Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated October 2016. Also included are revised versions of Figures 4 and 6 and a list of Navy-initiated corrections that will be implemented for the final version, which is currently scheduled for publication next Tuesday, 31 January. If possible, please attempt to provide a response by this Friday, 27 January, so the Navy can maintain its schedule for finalization of this document. Thank you.

California Department of Toxic Substances Control



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630



Edmund G. Brown Jr.
Governor

December 14, 2016

Mr. James Sullivan
BRAC Environmental Coordinator
U.S. Department of the Navy
BRAC Program Management Office West
33000 Nixie Way, Building 50
San Diego, California 92147

DRAFT FINDINGS OF SUITABILITY TO TRANSFER (FOST) #9 FOR CARVE-OUTS (COs) 2 AND 9, FORMER MCAS TUSTIN, CALIFORNIA

Dear Mr. West:

The California Department of Toxic Substances Control (DTSC) has reviewed the above-referenced document for the Former MCAS Tustin request for regulatory concurrence.

Based on the FOST document review for Carve-outs #2 and 9, DTSC concurs with the FOST provided notices, restrictions, covenants, and access clause are contained in the deeds for COs #2 and 9, including all other applicable requirements contained in the approved Project Environmental Review Form.

Please feel free to contact me at (714) 484-5452 or e-mail:
omoruyi.patrick@dtsc.ca.gov.

Sincerely,

Omo Patrick, P.E.
Hazardous Substances Engineer
Brownfields and Environmental Restoration Program

Mr. James Sullivan
December 14, 2016
Page 2 of 2

cc:

Douglas Bautista
Unit Chief
DTSC-Cypress

Mr. Guy Chammas
Navy BRAG PMO West
guy.chammas@navy.mil

Mr. Matt West
Assistant to the City Manager
City of Tustin
300 Centennial Way
Tustin, California 92780
MWest@tustinca.org

Ms. Content Arnold
Lead Remedial Project Manager MCAS El Toro and Tustin
BRAC Program Management Office West
33000 Nixie Way, Building 50
San Diego, California 92147
content.arnold@navy.mil

Ms. Mary T. Aycock
Remedial Project Manager
U.S. EPA Region 9 (SFD 8-1)
75 Hawthorne Street
San Francisco, California 94105
aycock.mary@epa.gov

Ms. Patricia Hannon, PG Engineering Geologist
Land Disposal and DOD Section
California Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3348
Patricia.Hannon@waterboards.ca.gov

Dhananjay Rawal

From: Chammas, Guy A CIV <guy.chammas@navy.mil>
Sent: Wednesday, March 01, 2017 4:11 PM
To: Patrick, Omoruyi@DTSC
Cc: Hannon, Patricia@Waterboards; Aycock, Mary (Aycock.Mary@epa.gov); 'Henning, Loren'; Sullivan, James B CIV NAVFAC HQ, BRAC PMO; West, Matt; Piguee, Kenneth; Dhananjay Rawal; AMaher@vestar.com; Giorgi, Erika@DTSC; Estrada, Thelma (Estrada.Thelma@epa.gov); Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Tencate, Michael D CIV NAVFAC SW; Hill, Amy J CIV NAVFAC HQ, BRAC PMO
Subject: FW: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin
Signed By: GUY.CHAMMAS@NAVY.MIL

Omo,
Thanks for providing your concurrence. Final FOST #9 is being issued tomorrow.

-----Original Message-----

From: Patrick, Omoruyi@DTSC [<mailto:Omoruyi.Patrick@dtsc.ca.gov>]
Sent: Wednesday, March 01, 2017 3:46 PM
To: Chammas, Guy A CIV
Subject: [Non-DoD Source] RE: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Hi Guy,

DTSC concurs with the Navy's RTCs on the draft FOST #9 for MCAS Tustin.

Thanks.

Omo

-----Original Message-----

From: Chammas, Guy A CIV [<mailto:guy.chammas@navy.mil>]
Sent: Wednesday, March 01, 2017 9:20 AM
To: Patrick, Omoruyi@DTSC
Subject: RE: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Thanks Omo, we'd like to get this document finalized this week, so if you could respond today, that would be helpful.

-----Original Message-----

From: Patrick, Omoruyi@DTSC [<mailto:Omoruyi.Patrick@dtsc.ca.gov>]
Sent: Monday, February 27, 2017 1:29 PM
To: Chammas, Guy A CIV
Subject: [Non-DoD Source] Re: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Hi Guy,

I am out of the office till Wednesday. I will check my record and get back to you on Wednesday.

Thanks.

Omo

From: Chammas, Guy A CIV <guy.chammas@navy.mil>
Sent: Monday, February 27, 2017 11:21:10 AM
To: Patrick, Omoruyi@DTSC
Cc: Arnold, Content P CIV; Sullivan, James B CIV NAVFAC HQ, BRAC PMO
Subject: RE: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Hi Omo,

The Navy is preparing to send a response letter to the comments received from the City of Tustin on the Navy's responses to comments on the draft version of FOST #9 (you and the other BCT members will be copied). We would like to finalize FOST #9 at that time, but still need your concurrence (or comments, if any) on the original RTCs. (The Navy's further response to the City is for clarification purposes only and does not substantively change the Navy's original response.) Please respond as soon as practicable.

The Navy has also identified an editorial error in Section 3.1 that will be corrected in the final version. The last word in the third sentence will be changed from "completed" to "implemented" to avoid a potential misunderstanding as to the status of the CERCLA response actions at IRP Sites 5S(a) and 6. I will be sending an email to the BCT detailing this.

Thank you.

-----Original Message-----

From: Chammas, Guy A CIV
Sent: Monday, February 13, 2017 4:45 PM
To: 'Omoruyi.Patrick@dtsc.ca.gov'
Cc: Arnold, Content P CIV
Subject: RE: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Hi Omo,

Just following up on this request. Do you have any comments on our RTCs? Thank you.

-----Original Message-----

From: Chammas, Guy A CIV
Sent: Tuesday, January 24, 2017 9:15 AM
To: Aycock, Mary (Aycock.Mary@epa.gov); 'Omoruyi.Patrick@dtsc.ca.gov'; Hannon, Patricia@Waterboards; 'Henning, Loren'

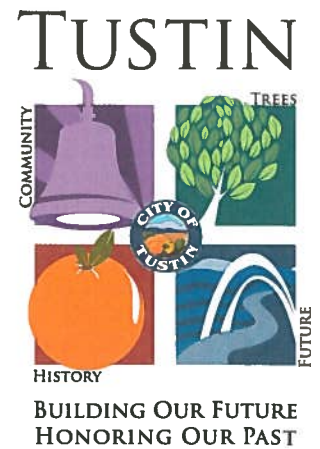
Cc: Sullivan, James B CIV NAVFAC HQ, BRAC PMO; 'West, Matt'; 'Piguee, Kenneth'; 'Dhananjay Rawal'; 'AMaher@vestar.com'; 'Giorgi, Erika@DTSC'; 'Estrada, Thelma (Estrada.Thelma@epa.gov)'; Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Tencate, Michael D CIV NAVFAC SW; Hill, Amy J CIV NAVFAC HQ, BRAC PMO
Subject: CONCURRENCE REQUESTED: Responses to Comments on Draft FOST #9 for Former MCAS Tustin

Fellow BCT Members:

Attached for your concurrence (or additional comments, if any) are the U.S. Department of the Navy's (Navy's) responses to comments received on Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California, dated October 2016. Also included are revised versions of Figures 4 and 6 and a list of Navy-initiated corrections that will be implemented for the final version, which is currently scheduled for publication next Tuesday, 31 January. If possible, please attempt to provide a response by this Friday, 27 January, so the Navy can maintain its schedule for finalization of this document. Thank you.

Guy Chammas, MS, PG, CPSS
Remedial Project Manager
Former Marine Corps Air Stations El Toro and Tustin U.S. Department of the Navy Base Realignment and Closure
Program Management Office West
33000 Nixie Way, Building 50
San Diego, CA 92147-5101
619.524.5922
guy.chammas@navy.mil

City of Tustin



December 2, 2016

Mr. James Sullivan
BRAC Environmental Coordinator
Base Realignment and Closure
Program Management Office West
33000 Nixie Way, Building 50, Suite 207
San Diego, CA 92147

SUBJECT: DRAFT FINDING OF SUITABILITY TO TRANSFER #9 FOR CARVE-OUTS 2 AND 9, FORMER MARINE CORPS AIR STATION TUSTIN, CALIFORNIA

Dear Mr. Sullivan:

Thank you for forwarding the "Draft Finding of Suitability to Transfer #9 for Carve-Outs 2 and 9, Former Marine Corps Air Station Tustin, Tustin, California" dated 2 November 2016 for review by the City.

The City has reviewed the document and has the following comments:

- 1. Section 2, Second Bullet (Page 1)** - It is stated that the "remainder of CO-9 crosses Warner Avenue and includes a portion of a parking lot supporting commercial businesses (Figures 2 and 6)." Please note the only improvements within CO-9 include portions of the newly constructed Tustin Ranch Road and Park Avenue, which include sidewalks and landscape areas. There currently are no commercial businesses or parking lots located within CO-9. In addition, it is also noted that the "area immediately adjacent to CO-9 to the north is currently under construction with new residential apartments." Please note the construction for that parcel has been completed.
- 2. Section 4.4 (Page 6)** - It is stated that there are no unacceptable vapor risks, yet the report also states the deed shall contain a clause wherein the transferee is notified that there is a potential vapor intrusion risk. Why is the potential for vapor risk being called out if the Navy has concluded that there are no unacceptable vapor risks? Isn't there potential risk that any environmental issue associated with the property could present itself? Why is this one identified specifically? The statement is confusing at best and inherently contradictory.
- 3. Section 5, First Paragraph (page 6) and Figures 4 & 6** - It is stated that "the ARICs for IRP Sites 6 and 5S(a) are respectively coincident with the legal boundaries of CO-2 and CO-9." This section further describes how land-use restrictions will be implemented on the ARICs by two separate legal instruments: Quitclaim Deeds and Covenants to Restrict Use of Property. The statement that the ARICs coincide with CO

boundaries is inconsistent with Figures 4 and 6 that depict both On-Site and Off-Site ARICs. As it pertains to the legal instruments to implement the land-use restrictions, please clarify how these will be implemented for previously transferred property.

4. **Section 6 (Page 7)** - This section discusses the adjacent properties that were previously found suitable for transfer thus having no impact on COs 2 and 9, yet both COs are adjacent to property with contamination discovered post-transfer. It would seem appropriate to discuss the adjacent properties associated with IRPs 5S(a) and 6 in this section as well.
5. **Figure 6** –
 - a. The ownership table is noted to be current as of 1 January 2013, which is nearly four years before the date of this document. While the City is not familiar with any changes in ownership since 1 January 2013, the City requests the table to be noted current as of the date of the FOST document.
 - b. The ownership table does not appear to have all APNs listed correctly. For example, the Department of the Navy should also be noted to own 430-381-31 and a portion of 430-381-32. It is unclear where 434-441-32 is located. The City of Tustin also owns 430-381-74 & 84. Please verify.
 - c. Please clarify why the proposed Off-Site ARIC does not extend onto the property where the toe of the plume is located (southeast corner of Park Avenue and Warner Avenue).

Should you have any questions regarding this matter, please do not hesitate to call me at 714-573-3116.

Sincerely,



Matthew S. West
Deputy City Manager

cc: Mary Aycock, U.S. EPA
Patricia Hannon, SARWQCB
Omoruyi Patrick, DTSC

ATTACHMENT 3
Hazardous Substances Notification Table

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Attachment 3: Hazardous Substances Notification Table

Carve-Out	Building/Structure Number	Area Type ID	Hazardous Substances ^(1,2)	Reportable Quantity (Lb/year)	CAS Number	RCRA Waste Code	Dates of Operation	Activities Conducted at Site	Remedial Action Taken
2	Former Building 556	Storage, Temporary (ST)-35	Resin-based and corrosive-type adhesives, methyl ethyl ketone, sealing compound, PD-680, petroleum oil and synthetic oil, paint-related materials, hydraulic fluids, and grease.	N/A	N/A	N/A	1990–1999	S	<p>Former Building 556 was operated by Marine Aviation Logistics Squadron (MALS)-16 for storage of hazardous materials. It was constructed in 1990. The unit (concrete) was specially designed for storage of hazardous materials. Hazardous materials stored in this unit included resin-based and corrosive-type adhesives, methyl ethyl ketone, sealing compound, PD-680, petroleum and synthetic oils, paint-related materials, hydraulic fluids, and grease.</p> <p>The unit consisted of five walled cells over an area of approximately 80 by 38 feet. Different types of chemicals (and compatibles) were stored in each cell on steel racks/pallets. In addition, the unit was split into four sections separated by 6-inch berms. Materials were stored in 5- or 55-gallon drums stacked on wooden pallets in these sections. A catch sump (2 by 2 feet) was located inside each cell and section. A sump also ran along the center of the unit. Additional sumps were located along the outside perimeter of the unit along where 55-gallon drums were stored on steel pallets. A 2-foot-high containment wall was located north of the unit. A portion of this wall had developed cracks and was considered the only threat to the overall integrity of the unit. Dates of operation were from 1990 to 1999.</p>
	Former Building 556 and ST-35	None	<p>Strontium-90 (maximum of 50 microcuries in each of 12 excess ice detector units for CH-53E helicopters)</p> <p>Krypton-85 (maximum of 80 microcuries) and nickel-63 (maximum of 10 microcuries) in each of two radiation detection meters</p> <p>Naturally occurring radium-226 (4 picocuries per gram maximum) and naturally occurring thorium-232 (6 picocuries per gram maximum) in a total of 11 drums storing unused aluminum oxide sandblast grit</p>	N/A	N/A	N/A	1998–1999	S	<p>The <i>Final Historical Radiological Assessment</i> (Roy F. Weston, Inc. 2001) identified former Building 556 and an adjacent drum storage area (presumably ST-35) as locations where radiological materials were reportedly temporarily stored in 1998 and 1999 while arrangements were being made for their disposition as part of closure of Former Marine Corps Air Station (MCAS) Tustin. Inside the building, a 55-gallon drum containing radiological components (12 ice detectors and 2 radiation detectors) had been present since 1998 in a locked storage room. Adjacent to the building (again, presumably at ST-35), 11 drums (two 85-gallon, five 55-gallon, three 30-gallon, and one 15-gallon) containing aluminum oxide sandblast grit with detectable, although exempt, quantities of naturally occurring radium and thorium, had been present since early 1999. All these materials were removed in June 1999. As documented in the <i>Final Radiological Release Report</i> (Weston Solutions, Inc. 2004), former Building 556 and the adjacent drum storage area underwent a radiological survey and were recommended for no further action/unrestricted radiological release. This recommendation was concurred upon by the California Environmental Protection Agency/Department of Toxic Substances Control (DTSC 2004); United States Environmental Protection Agency (U.S. EPA 2004); California Regional Water Quality Control Board, Santa Ana Region (RWQCB 2004) and California Department of Health Services (2004).</p>

Attachment 3: Hazardous Substances Notification Table

Carve-Out	Building/Structure Number	Area Type ID	Hazardous Substances ^(1,2)	Reportable Quantity (Lb/year)	CAS Number	RCRA Waste Code	Dates of Operation	Activities Conducted at Site	Remedial Action Taken
	Former Building 267	ST-36	Paints, thinners, and solvents	N/A	N/A	N/A	1981–1999	S	<p>Former Building 267 was operated by MALS-16 for storage of hazardous materials. It was constructed in 1981. The unit (concrete) consisted of shelves formerly used to store 1- to 5-gallon-capacity cans. Materials used for maintenance and cleaning operations were stored in this unit, typically in 5- to 55-gallon drums. The unit measured 15 by 10 feet.</p> <p>Hazardous materials stored in the unit included paints, thinners, and solvents. Materials were usually ordered and stored on an as-needed basis; hence, holding time in the unit was limited. A list of materials was maintained and updated regularly by the operating division. The overall integrity of the unit was good. An exhaust system was in place and in working condition. A flammable liquid storage cabinet was located along the outside wall (northwest) of the unit. Materials were checked out as required by users. Dates of operation were from 1981 to 1999.</p>
	Former Building 568	Miscellaneous, Wash Area 25	Unknown	N/A	N/A	N/A	Unknown–1999	S,D	<p>This former wash area was located in the southwest corner of former Building 568 (armory) and was connected to Treatment, Oil/Water Separator X6. Dates of operation were from an unknown year to 1999.</p>
	Former Building 568	Treatment, Oil/Water Separator X6	Washing activities from former Building 568	N/A	N/A	N/A	Unknown–1999	S,D	<p>This was a 680-gallon-capacity, concrete oil/water separator (OWS) located in the southwest corner of former Building 568 (armory). According to the <i>OWS Survey</i>,³ OWS-568 received wastewater from mop washing activities with discharge channeled to the sanitary sewer system. Wastes were generated from cleaning 50-caliber guns in the building. Dates of operation were from an unknown year to 1999.</p>
	Former Building 250	Installation Restoration Program (IRP) Site 6	Substances associated with stored drums and waste Alodine, a corrosion inhibitor for aluminum, chromic acid, cyanide, and fluoride	N/A	N/A	N/A	1972–1981	S,D	<p>IRP Site 6 is located in the southern portion of Former MCAS Tustin, north of Jamboree Road. The site was formerly occupied by Building 250 and was used as a paint locker and drum storage area from 1972 to 1981. Building 250 was also used as a receiving and distribution center for MCAS Tustin supplies. An aerial photograph from 1976 showed evidence of aboveground storage tank locations near the northwest corner of the site and a former drainage ditch that crossed the site in an approximately northeast/southwest direction.</p> <p>The <i>Initial Assessment Study</i> (Brown and Caldwell Consulting Engineers 1985) reported that an estimated 53 gallons of waste was potentially released to soil from an average of 100 drums stored at the site at any given time. In addition to the drum storage, an average of 2 gallons per month of waste Alodine, a corrosion inhibitor for aluminum, was reportedly disposed of at IRP Site 6. An estimated 20% of the waste Alodine was rinsed with water onto the grass, and 80% was disposed directly onto the grass. An estimated 225 gallons of this solution, which contains chromic acid, cyanide, and fluoride, was disposed by this method from 1972 to 1981 (Bechtel Environmental, Inc. 2004).</p> <p>Previous investigations and groundwater monitoring at IRP Site 6 indicated trichloroethene (TCE) concentrations exceeding the California maximum contaminant level (MCL) of 5 micrograms per liter (µg/L) and 1,1-dichloroethene concentrations exceeding the California MCL of 6 µg/L in the first water-bearing zone.</p> <p>As documented in the <i>Final Record of Decision (ROD)/Remedial Action Plan (RAP) for Operable Unit 4B</i> (U.S. Department of the Navy [DON] 2010), the remedy selected for groundwater at IRP Site 6 is in situ bioremediation, monitored natural attenuation, and institutional controls; soil at IRP Site 6 requires no further</p>

Attachment 3: Hazardous Substances Notification Table

Carve-Out	Building/Structure Number	Area Type ID	Hazardous Substances ^(1,2)	Reportable Quantity (Lb/year)	CAS Number	RCRA Waste Code	Dates of Operation	Activities Conducted at Site	Remedial Action Taken
									<p>action. The remedial action was implemented to achieve site-specific remedial action objectives and remediation goals (DON 2010).</p> <p>The <i>Final ROD/RAP</i> (DON 2010) identified TCE and 1,1-dichloroethene as chemicals of concern (COCs) in groundwater. The IRP Site 6 COC plume is mostly located within Carve-Out (CO) 2, which is leased to the City of Tustin (City) through a <i>Lease in Furtherance of Conveyance</i> (DON 2002d). IRP Site 6 consists of commercial development, including parking lots, streets, and minor landscaping associated with adjacent businesses.</p> <p>A <i>Final Operating Properly and Successfully (OPS) Demonstration Report</i> for IRP Site 6 was completed and issued on 22 February 2016, by AIS-TN & Associates Joint Venture (ATJV 2016). U.S. EPA concurred with the OPS determination for IRP Site 6 in letter dated 17 February 2016 (U.S. EPA 2016). DTSC concurrence was obtained via an e-mail dated 9 November 2015 (DTSC 2015), and RWQCB concurred via a letter dated 6 November 2015 (RWQCB 2015).</p>
9	Southeast of former Aircraft Hangar No. 2	IRP Site 5S(a)	Formerly part of a culvert system that collected surface-water runoff from most of the northwestern portion of Former MCAS Tustin and was connected to several existing and former buildings (e.g., Building 29). These Buildings handled waste oils, cleaning solvents, hydraulic fluids, diesel fuel, gasoline, paint stripper, battery acids, and other chemical waste	N/A	N/A	N/A	Unknown–1999	D	<p>IRP Site 5S(a) – Drainage Area No. 1 – Ditch 5a South, is located in the southern portion of Former MCAS Tustin, southeast of former Aircraft Hangar No. 2 (Building 29). IRP Site 5S(a) was formerly part of a culvert system that collected surface-water runoff from most of the northwestern portion of Former MCAS Tustin and was connected to several existing and former buildings (e.g., Building 29).</p> <p>During the period of MCAS Tustin operations, a variety of contaminants including fuels, oils, lubricants, and solvents may have drained into IRP Site 5S(a) through building floor drains connected to the culvert system. IRP Site 5S(a) also received surface-water runoff from other IRP sites (including 11, 12, 13S, and 13W) and several areas of concern. Materials handled at these sites included waste oils, cleaning solvents, hydraulic fluids, diesel fuel, gasoline, paint stripper, battery acids, and other chemical wastes (Bechtel Environmental, Inc. 2004). The former drainage ditch located at IRP Site 5S(a) was diverted and backfilled by the City and its sublessees.</p> <p>The <i>Final ROD/RAP</i> (DON 2010) identified TCE in groundwater to be the COC. The remedy selected for groundwater is in situ bioremediation, monitored natural attenuation, and institutional controls; soil requires no further action. The remedial action was implemented to achieve site-specific remedial action objectives and remediation goals (DON 2010).</p> <p>A portion of the IRP Site 5S(a) TCE plume is located within CO-9, which is leased to the City through a <i>Lease in Furtherance of Conveyance</i> (DON 2002d). IRP Site 5S(a) consists of undeveloped and developed property, including portions of the newly constructed Tustin Ranch Road and Park Avenue and associated sidewalks and landscaping. The northern portion of IRP Site 5S(a), northeast of Warner Avenue, is currently an open, partially grass-covered area intersected by Tustin Ranch Road. IRP Site 5S(a) north of Warner avenue is designated as “Residential Core” (City 1998, 2012). Residential apartments are present in the area immediately north of IRP Site 5S(a).</p> <p>A <i>Final OPS Demonstration Report</i> was completed and issued on 22 February 2016 by ATJV (2016). U.S. EPA concurred with the OPS determination for IRP Site 5S(a) in letter dated 17 February 2016 (U.S. EPA 2016). DTSC concurrence was obtained via an e-mail dated 9 November 2015 (DTSC 2015), and RWQCB concurred via a letter dated 6 November 2015 (RWQCB 2015).</p>

Notes:

- ¹ This table was prepared in accordance with 40 CFR §§ 373.3 and 302.4. The information contained in this notice is required under the authority of regulations promulgated under CERCLA § 120(h), 42 U.S.C. § 9620(h). The substances that do not have chemical-specific identifications (and associated annual reportable quantities) are not listed in 40 CFR § 302.4 and therefore have no corresponding CAS numbers, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities.
- ² The property may contain pesticide residue from pesticides that have been applied in the management of the property. The grantor knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the grantor's position that it shall have no obligation under the covenants provided pursuant to CERCLA § 120(h)(3)(A)(ii), 42 U.S.C. § 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.
- ³ An exact reference for this document is not available.

Acronyms and Abbreviations:

µg/L	=	micrograms per liter
§(§)	=	Section(s)
ATJV	=	AIS-TN & Associates Joint Venture
CAS	=	Chemical Abstracts Services
CERCLA	=	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	=	<i>Code of Federal Regulations</i>
City	=	City of Tustin
CO	=	Carve-Out
COC	=	chemical of concern
D	=	disposal of wastes
DON	=	U.S. Department of the Navy
DTSC	=	California Environmental Protection Agency/Department of Toxic Substances Control
ID	=	identification
IRP	=	Installation Restoration Program
Lb	=	pound
MALS	=	Marine Aviation Logistics Squadron
MCAS	=	Marine Corps Air Station
MCL	=	maximum contaminant level
N/A	=	not applicable
OPS	=	operating properly and successfully
OU	=	Operable Unit
OWS	=	oil/water separator
R	=	release
RAP	=	Remedial Action Plan
RCRA	=	Resource Conservation and Recovery Act
ROD	=	Record of Decision
RWQCB	=	California Regional Water Quality Control Board, Santa Ana Region
S	=	storage of hazardous material or waste
ST	=	Storage, Temporary
TCE	=	trichloroethene
U.S.C.	=	<i>United States Code</i>
U.S. EPA	=	United States Environmental Protection Agency

ATTACHMENT 4
Petroleum Products Notification Table

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Attachment 4: Petroleum Products Notification Table

Carve-Out	Area Type ID	Petroleum Product ¹	Dates of Operation	Activities Conducted at Site
2	Storage, Temporary (ST)-35	Petroleum oil, synthetic oil, hydraulic fluids, and grease.	1990–1999	S
	ST-36	Paints, thinners, solvents, and various/unknown	1981–1999	S
	Miscellaneous Wash Area 25	Various/Unknown	Unknown–1999	D
	Treatment, Oil/Water Separator X6	Various/Unknown	Unknown–1999	D
	IRP Site 6 ²	Various/Unknown	1972–1981	D
9	IRP Site 5S(a) ²	Various/Unknown	Unknown–1999	D

Notes:¹Includes only petroleum products that fall within the scope of the CERCLA petroleum exclusion set forth in CERCLA § 101(14).²Although this site is being addressed under CERCLA, petroleum products may have been disposed of there.**Sources:** DON (2002b,c)**Acronyms and Abbreviations:**

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 D = disposal of petroleum product
 ID = identification
 IRP = Installation Restoration Program
 MCAS = Marine Corps Air Station
 S = storage of petroleum product
 ST = Storage, Temporary
 § = Section